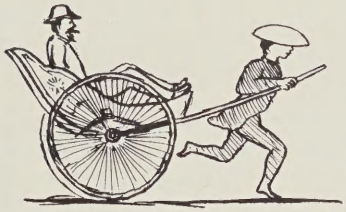
Japan Day By Day

An Exhibition
Honoring
EDWARD SYLVESTER MORSE
and Commemorating
the Hundredth Anniversary
of His Arrival in Japan
in 1877



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Library of Congress Cataloguing in Publication Data
Hickman, Money L.
Japan Day by Day
Morse's collection at the Peabody Museum of Salem was exhibited there Nov. 23, 1977-Apr. 15, 1978.
"Selected Bibliography of E.S. Morse": p. 195
1. Japan-Civilization-Exhibitions.
2. Peabody Museum of Salem, Salem, Mass.
3. Morse, Edward Sylvester, 1838-1925
4. Museum directors—Massachusetts-Salem-Biography.
5. Zoologist-United States-Biography. I. Fetchko, Peter, 1943- joint author. II. Peabody Museum of Salem, Salem, Mass. III. Title.
DS821.H424 952'. 0074'01445 77-17088
ISBN 0-87577-054-1

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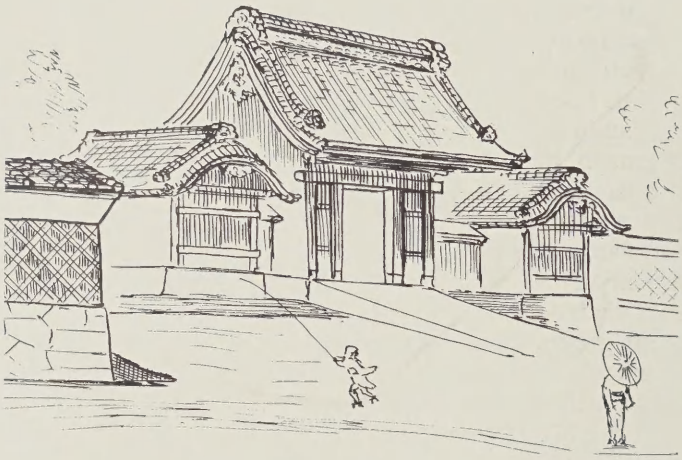

Foreword

I never knew Edward S. Morse, but I feel as though I had. There is also a sense of great loss in having missed him. He died in 1925 and I came to the Peabody Museum in 1931. Six years had not dimmed his memory. There were hundreds of people, including all those then at the Museum, who had known him well. His spirit, on sheer momentum, seemed to be still running the institution.

Morse was the Museum Director from 1880 to 1916 and Director Emeritus until his death. During the last two years of his directorship he was relieved of most administrative duties by Lawrence W. Jenkins as Assistant Director in Charge and his eventual successor. During his absences in Japan or on national lecture tours, John Robinson, long a Trustee and Treasurer of the Museum, filled in as Acting Director. Morse was the third of only five Directors (and A.S. Packard served but two years) which the Peabody has had from 1867 to the present, and each served a long apprenticeship under his predecessor. This extraordinary circumstance has insured a continuity and stability for the institution that might be unique in the Museum world.

Morse had charisma, humor, and intensive scholarship among his many attributes. He was possessed of an intellectually curious but orderly mind. He effervesced. On the lecture platform he was superb on a remarkably wide variety of subjects. His blackboard talks—drawing simultaneously with both hands—were famous and he was in constant demand the length and breadth of the land on his lecture circuits. There are still a few people who recall his lectures with pleasure and admiration.

He was also a catalyst who inspired people in Boston and Salem to become unbelievably enthusiastic about Japanese culture and art. He stimulated many to visit that country. Ernest Fenollosa of Salem, the foremost authority on Oriental art of his day, was his protégé. William Sturgis Bigelow, Percival Lowell, and Charles G. Weld, among many others, were his friends. His influence aroused their interest and resulted in the great collections of Japanese art at the Museum of Fine Arts in Boston and the arts and crafts of Japan (in a building built by Weld) at the Peabody Museum of Salem.

It is therefore most appropriate that the one hundredth anniversary of Morse's first visit to Japan in 1877 should be celebrated with an exhibition equal to his importance, and a catalogue suitable to an event of the utmost international significance. He was certainly one of the great pioneers in the meeting and mutual appreciation of Western and Japanese culture.

We are indebted to Peter Fetchko and Money Hickman for the initial inspiration for the exhibition. The organization and installation is the work of Mr. Fetchko, and he and Mr. Hickman have produced the catalogue jointly.

Ernest S. Dodge
Director

Preface and Acknowledgements

This exhibition, which is intended to celebrate the personality, interests and accomplishments of Edward Sylvester Morse, had its inception almost four years ago. It occurred to the organizers that 1977 would mark the one-hundredth anniversary of Morse's arrival in Japan, and it seemed appropriate to commemorate that important event in some felicitous manner. The completion of new storage facilities for the Ethnological Collections of the Peabody Museum of Salem in 1975, and the subsequent transfer of a large portion of the Japanese materials to these new quarters made it a logical time to carry out an inventory and inspection of the entire Japanese collection. During this process, a large number of the finest pieces were selected with the idea of mounting a comprehensive exhibition that would reflect Morse's enduring preoccupation with the broad spectrum of creative traditions that had flourished in Japan from the earliest times to the present. It is hoped that these efforts will not only cast a clearer light on Morse's prodigious and farsighted activities, but also stimulate greater interest in the many areas of Japanese art that remain to be explored.

The authors wish, naturally, to express their initial debt to Edward Sylvester Morse himself. His dynamic energies and broad vision have served as a source of constant inspiration, and much of the information included in the catalogue has been drawn directly from his writings. Secondly, the authors wish to acknowledge their indebtedness to Dorothy Wayman's instructive book *Edward Sylvester Morse, a Biography* (Harvard University Press, 1942), the chief published source of biographical data on Morse, which has served as a valuable reference resource on Morse's life and activities.

Many people have contributed generously to the project in a variety of ways. Catharine Whyte was particularly gracious, not only in her material support of the exhibit but also in providing instructive documents and objects connected with her grandfather. We are indebted to many individuals for information about Prof. Morse's life and character, but we owe a special debt of gratitude to Mary Weld Pingree, Helen Butler, and Walter Muir Whitehill for sharing with us their remembrances of Morse and anecdotes about his behavior.

Among those who unselfishly shared their expertise with us and contributed in the most fundamental way to the success of the exhibition are: John Thayer, for his indefatigable efforts in preparing the informative audio-visual introduction; Keiko Thayer, for creating the Japanese gardens and flower arrangements; Mitch Krebs, for her unflagging support in coordinating photography, assembling data on pieces, and helping in the liaison with the publishers; Chieko Conrad, for her infectious enthusiasm and careful research on many aspects of the Japanese collection, particularly the shop signs, with their difficult inscriptions; and Mrs. Peter B. Seamans for her assistance with the Okinawan textiles pointing out intricacies of weave and pattern we might have overlooked. Many vitrines and cases were constructed specially for the exhibition, and these could not have been completed without the industrious efforts of Cynthia and Byron Getchell, together with William Eldridge, whose devotion to the work was *such* that he generously gave up three weeks of his vacation time to help with the construction.

It is with a deep sense of sorrow that we note the death of Eleanor Weiner, who had worked diligently in the preparation of objects for the exhibition.

The cooperation of Barbara Edkins and Jean Mills of the Museum Library, where the sixty running feet of Morse documents are carefully preserved, was instrumental in locating informative data on Morse. A special debt of gratitude is due Lucy Batchelder, Curatorial Assistant, for her persevering efforts in all phases of the preparation of the exhibit and catalogue. Her patience and fortitude served as a model to all to push ahead optimistically despite the inevitable difficulties that attend a project of this size and complexity.

The organizers would also like to express their appreciation to Diana Robins, Museum Intern from Kirkland College, for her diligent research through Morse documents and also for her help in preparing the Ainu section

of the catalogue. We also would like to thank Ivan Mbagintao, Museum Intern from the Papua New Guinea Museum for his perseverence in studying and preparing for display many of the artifacts contained in the exhibition. Mark Sexton, Staff Photographer, showed remarkable patience in the face of heavy demands and difficult conditions, and we are also indebted to Geraldine Ayers for her precise and accurate typing of the manuscript.

We wish to thank the Board of Trustees of the Peabody Museum of Salem and Ernest S. Dodge, Director for twenty-six years, for the freedom and encouragement they have generously extended to us in organizing this project.

We would also like to express our appreciation to the Museum of Fine Arts, Boston, for its advice and cooperation and the generous loan of several pieces from the Morse Collection for the exhibition.

To Walter Tower, Charles Moffat and Edward Bick of the Nimrod Press we also express our gratitude for their efforts in preparing a complex catalogue in a short period of time. The authors wish to acknowledge their indebtedness to the National Endowment for the Arts, whose generous grant has made the publication of the catalogue possible.

Finally, I would like to express my deep sense of appreciation to my collaborator and friend Money Hickman of the Museum of Fine Arts, Boston, whose knowledge of Japanese art was indispensable in the preparation of the catalogue and exhibition.

Peter Fetchko
Curator of Ethnology

EDWARD SYLVESTER MORSE
(1838-1925)

"All arts which have anything to do with man have a common bond and as it were contain within themselves a common affinity."

Marcus Tullius Cicero
(106-43 B.C.)

Edward Sylvester Morse, His Life and Interest in Japan

Edward Sylvester Morse (1828-1925) was a remarkable man, and his life and accomplishments do not lend themselves to easy summary. The reasons for this lie in the breadth of his abilities, the scope and diversity of his interests, and the constructive influence he exercised on many people, institutions, and ideas. His origins were humble, but he rose, through his own industry, to a position of scholarly eminence and popular affection. From the time he was a boy, he was a dedicated student of natural history, and his lifetime of research and training in this area led him to adopt certain rational, systematic methods of study that were fundamental to all his scholarly activities. Because of his pioneer investigations into certain modest forms of life—creatures such as minute land-snails and a species of shellfish known as Brachiopods—he had already achieved distinction in zoological circles when he was still a young man. But his intellectual curiosity and enthusiasm were such that no single discipline or area of study was large enough to span his interests, and, as we shall see, he felt no inhibitions about plunging energetically into the investigation of any subject that inspired him or challenged his intellectual powers. As a scientist, Morse was an ardent advocate of Darwin's ideas, and a perennial preoccupation with generic relationships and evolutionary influences pervades his research. Thus, for Morse, the philosophical premise that all forms, whether natural or man-conceived, could be set into taxonomic or systematic frameworks and invariably reflected the influence of related forms or processes, was an approach that could be applied with equal validity to the investigation of subjects as diverse as brachiopods, archaeological remains, or the evolution of technology.

The variety of interests that characterize Morse's multi-faceted career are such that one searches in vain for a single, expedient term that encompasses them all. For his intellectual versatility was such that he was able to move from one field or disciplinary framework to another with celerity, utilizing his sharp powers of observation and analysis to throw new or original light on a broad range of subjects. His research exended into the fields of archaeology, anthropology, ethnology, folklore, astronomy, and architecture, focusing on matters as diverse as ceramics, music, latrines, solar heating, archery and various aspects of technology. His interests included public health and environmenal concerns, and during his later life he was also a frequent commenator on social and ethical matters. Moreover, he developed several modest inventions which attest to the practical, innovative side of his personality. In a sense, he seems to have combined in his own person something of the spirit of inter-disciplinary investigation that has come to flourish in more recent times.

In 1877, Morse, hoping to find a greater sampling of brachiopods than had hitherto been available to him, set off for the distant islands of the Japanese Archipelago, where these shellfish were rumored to live in profuse variety. The day after he reached Yokohama, he celebrated his thirty-ninth birthday. The day was a special one, for it marked the beginning of a new and significantly different phase in his life. His scholarly work before his arrival in Japan had been devoted almost entirely to matters relating to natural history, primarily to zoological inquiry. Once in Japan, however, his interests began to multiply, for the diverting spectrum of the traditional culture that surrounded him intrigued him at every turn. It was the stimulus of this exposure to a different culture, unfamiliar patterns of thought, behavior, and creative forms that acted as a catalyst on Morse, enlarging his conceptual horizons and confronting him with a provocative, challenging array of new topics for study.

Morse came to Japan twenty-four years after Commodore Perry's arrival in Tokyo Bay in 1853, a momentous event in Japanese history that marked the end of two and a half centuries of self-imposed isolation from the outside world and the beginning of that profound process of change that eventually led Japan to become one of the world's most

powerful nations. By 1867, the last Shogun ("Generallissimo") of the Tokugawa line, which had governed Japan since the beginning of the seventeenth century, had been overthrown, and early in the next year a new centralized "imperial" governmental structure had been established with a young emperor installed as the head of state. Following traditional precedent, a new "year period" was instituted to celebrate the commencement of the new reign. Known as the "Meiji Period" (1868-1912), it designates that crucial period of revolutionary change when Japan moved from a backward feudal society based on an agricultural economy into an impressive industrial state, modernized along Western lines, and prepared to compete economically with many of the other powers of the world.

When Morse came to Japan in 1877, however, the Japanese were only in the initial stages of adopting those aspects of the West that they felt were necessary for consolidating and strengthening their nation. They had started to reform their society along more egalitarian lines, established new educational institutions, and were beginning a diligent study of Western industrial and technological methods. The first stretch of railroad, between Yokohama and Tokyo, was completed in 1872, and by the time of Morse's arrival, telegraph lines connected many of the main cities. Yet most of Japan remained untouched by such developments, and for the majority of the population, who clung affectionately to their traditional ways, little had changed from feudal times. Within the space of two decades after Morse' time of residence in Japan, however, Japan had changed fundamentally, and many of the lovely manifestations of traditional Japanese culture had disappeared, or were in imminent danger of being destroyed by the relentless pressure to modernize and be competitive.

Yet there were also many aspects of traditional Japan that proved resilient, and continued to flourish, some in their original forms, and others in evolutionary transformations that reflected the changing times. Something of the essential spirit of Meiji

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times, with its mixture of the conservative native past and its new fascination with the panaceas of the West, is combined in a delightful and instructive manner in a shop sign of the period (No. 1). Wooden signs of this sort were conventionally displayed at the entrance of Japanese stores, either free-standing, or more commonly, hung under the eaves, where they could be seen by people approaching from both directions. The sign appears to advertise a "patent cure" inspired by some Western prototype. A lively foreigner, with a yellow moustache, and top hat and bow tie sits jauntily astride a galloping steed, whose pose seems intended to assure the customer of the speed and efficacy of the product. Written in Japanese *katakana* script is the term "Uruyusu," apparently based on some exotic, but no longer identifiable Western name.

Edward Sylvester Morse's three closely-grouped periods of residence in Japan during the early part of the Meiji Period (June-Nov. 1877; April 1878-Sept. 1879; June 1882-Feb. 1883) only amount to a total of something over two and a half years, but Morse was highly motivated and made superb use of his time. He worked diligently and systematically, taking copious notes on every aspect of Japanese life that caught his attention. These notes included, and were complemented by, hundreds of instructive sketches that recorded first hand varied manifestations of the Japanese people and their traditional culture. Morse wrote frequently, while he was in Japan and in the following decades, on a broad range of subjects dealing with Japan, producing important scholarly works and essays on topics ranging from archaeology to pottery and architecture. But the final, comprehensive product of all these labors did not appear until three and a half decades later, when the author was seventy-nine years old. On July 1, 1913, Morse received a letter from his devoted friend William Sturgis Bigelow. Bigelow, who had accompanied Morse to Japan in 1882 and become one of the great pioneer collectors of Japanese art, affectionately chided Morse for backsliding into zoological research. *"The only thing I don't like in your letter is the confession that you are still frittering away your valuable time on the lower forms of animal life . . . instead of devoting it to the highest, about the manners and customs of which no one is so well qualified to speak as you. Honest now, isn't a Japanese a higher organism than a worm? Drop your damned Brachiopods. They'll always be there and will inevitably be taken care of by somebody as the years go by. . . . For the next generation of observers, the Japanese we knew will be as extinct as the Belemnites."*

Bigelow's letter seems to have realized its intention, for Morse proceeded to get out all his journals and sketches, and was soon industriously at work on an ambitious book on Japan. Despite a heavy schedule of duties and daily distractions, he systematically worked his way through all his notes and pictorial materials, weaving them into a narrative account of his experiences in Japan, which was dutifully typed by his secretary, Margarette Brooks. The manuscript was finally completed late in 1916, and the book was published in the following year in two volumes under the title *Japan Day by Day*, and included seven hundred and seventy-seven illustrations by the author.

Enthusiastic compliments on the book came from every side. The colorful Mrs. Isabella Stewart Gardner wrote: *"I have this moment finished reading that most delightful book of yours. It has given me so much pleasure that I am bothering you by writing to thank you for writing it. It recalls very long ago days in Japan and also reminds me of very many times when you have talked to me about Japan and drawn your delightful sketches. I wish I could see you oftener and hear more of the enchanting things you can tell. You are much to be envied."* Bigelow was in delicate health, but Morse's book filled him with nostalgia. *"I have been enjoying the emotions of decomposition for the last ten days—that is, feeling distinctly rotten, which I suppose to be the prelude to disintegration, but before I break up I want to tell you . . . how this book brings back the old days as if they were yesterday. Not only what you write, but what you suggest. It is strange how one thing brings up another, as the man said when he took an emetic. Well, for good or ill, the cruise to Japan was the turning point in my life—whether for better or worse, who knows? What is the difference, anyway, between good and bad? I can only give cases. You, for instance, are a good fellow. Long life and happiness to you, . . ."*

Although *Japan Day by Day* is not a scholarly work, it is nevertheless a wonderfully instructive one. Writen in an offhand, unpretentious manner, it presents the reader with a whole spectrum of carefully observed details and impressions of Japan at a watershed moment in the history of that ancient nation when the hold of the past was still strong, but a radically different future had already appeared on the horizon. However, at the same time that it accurately reflects the

circumstances of the period, there is also a perennial, timeless quality about much of the information included in it, and there are many insights about Japan and her people that are as valid today as they were when they were written. Morse obviously had a deep feeling of affinity and profound affection for Japan, but he was also a hardheaded pragmatist, habituated by his long training as a scientist to careful observation and analysis. It is this mixture of enthusiasm and objectivity that makes *Japan Day by Day* stimulating reading, and Morse's lively and sensitive sketches also do much to enhance the work and illuminate its contents.

This catalogue and the related exhibition are intended to commemorate the one-hundredth anniversary of Prof. Morse's arrival in Japan, and to celebrate his life and accomplishments, particularly those aspects that relate to Japan. The authors have felt justified in appropriating his title *Japan Day by Day* not only because of their intention to focus on the circumstances of Morse's activities associated with Japan, but also because the variegated range of objects included in the exhibition reflect in an altogether representative manner the diversity and open-mindedness of his interests. For Morse, in his own original and farsighted way, had no predisposition to regard one creative form, media, or point of view as necessarily superior to another, and this fortunate lack of bias made it possible for him to see significance and beauty in a broad range of human activities and their creative manifestations. Thus, the extensive collection of Japanese arts and artifacts preserved today in the Peabody Museum of Salem stands as a remarkable testament to Morse's labors and wisdom, and also of the continuing influence of his ideas on that institution. The title *Japan Day by Day* is also a fitting one for the exhibition and catalogue not only because it suggests the continuity of tradition in daily life in Japan, but also because of its implication of the broader evolutionary span of human activity in Japan, from the earliest times to the present. Morse's interests are reflected here also, for man's affairs, whether in neolithic, medieval, or recent times, were all absorbing matters to him. But let us turn here to his early life.

Edward Sylvester Morse was born in Portland, Maine on June 18, 1838. He was one of seven children, and known as "Ned" as a boy. His father, Johnathan Kimball Morse, was a partner in the small firm of Byron Greenough & Co., who were, according to one of their fliers "manufacturers and wholesale dealers in hats, caps, furs, and buffalo robes, gloves, mittens, umbrellas, etc." Johnathan Morse was a deacon in the Baptist Church, and the strict tenets of his church and its dour preoccupation with literal interpretation of the Bible seem to have exercised a dominating influence on his personality and attitude toward life. An incident that took place when Ned was twelve appears to have shaped his subsequent dislike for institutional religion. When his oldest brother Charles died of Typhoid fever, the funeral sermon was delivered by a zealous minister more preoccupied with doctrine than Christian compassion, whose exposition doomed the departed to hellfire because he had never been baptized. Ned's mother Jane was so incensed by the dogmatic rantings that she determined never again to step inside the door of a church. Despite his father's fervent desire that his children adhere to the faith, Ned seems thereafter to have followed his mother's example. His outspoken criticism, in later years, of Christian activities in Japan, where evangelical missionaries from America were busily courting converts, was probably the result not only of his scientific distaste for dogma, but also of his memory of that unhappy childhood experience.

A pragmatic concern with success in the fur business and devotion to the doctrines of his church seem to have preoccupied Ned's father, and there seems no indication that he felt any affinity for intellectual pursuits. Ned's mother was different, however. She appears to have had a life-long affection for literature, and a marked interest in scientific subjects. She had, for instance, some familiarity with astronomy, an unusual accomplishment for a woman of her time and circumstances, and she also knew enough about the principles of botany to propagate and hybridize flowers. It was she who stimulated Ned's boyhood interest in nature, and the fact that she lived until 1896 made it possible for her to witness many of her son's impressive accomplishments.

As a boy, Ned Morse appears to have been independent in temperament, boisterous in spirit, and inclined toward mischievous behavior, traits he seems to have retained over the years. Schooling, at least as it was carried on in the summer terms of New England provincial "academies," apparently held little interest for him, for he attended three of these schools, and was expelled from all of them. A cavalier attitude toward authority seems to have been part of the problem, but his teachers, understandably

enough, also took a dim view of his predilection for ignoring his lessons, and wandering about through neighboring forests and along the seashore (where he was, in fact, diligently pursuing his own educational objectives). In later years, a lively reflection of this rebellious attitude toward formal, pedantic education could be seen in his brusque pronouncements (from which he obviously derived a kind of perverse satisfaction) that he had never graduated from a single educational institution of any kind.

Faced with his son's dismal scholastic record, Morse's father indicated that he thought it was time for his errant offspring to come to grips with the real world, and seek employment. Fortunately, Ned Morse had a natural talent for drawing, and through the intercession of his older brother Fred, who was an employee of the Portland Company (where locomotives for the Maine Central Railroad, and other industrial equipment was manufactured), he was taken on as an apprentice draftsman. He was sixteen, and his salary came to four dollars a week.

Morse labored at his draftsman's board at the Portland Company for two years, and the monotonous daily routine producing drawings and blueprints seems finally to have given him second thoughts about the merits of formal education. He decided to leave his job, and by early June of 1856, he was once again a student, this time at the Bethel Academy, 60 miles north of Portland. Although his curriculum, Latin Grammar, "Boyd's Rhetoric," Arithmetic, and Grammar, does not seem to have stimulated a great deal of enthusiasm in Morse (in a letter to his friend John Gould he did admit to a mild interest in Latin Grammar), the several months that he did stay on at Bethel were nevertheless significant ones in his life. This was because he came under the influence of Dr. Nathaniel True, the school principal, who was not only a dedicated teacher and scientist, but also an astute judge of character. True alternated his classroom lectures on subjects such as chemistry, botany and geology with frequent trips into the field, where he and his students pursued their investigations of natural phenomena at first hand, within their environmental context. True encouraged Morse's lively preoccupation with nature, his curiosity about her forms and their taxonomy; and he recognized that, given proper direction, the boy's interests and energies might lead to a productive career in some scientific discipline. True put Morse in contact with members of the Boston Society of Natural History, and it was before that body that his first scientific paper was read, on November 19, 1856. Morse's subject was an earth-colored land snail, only one thirty-second of an inch in length, called *Helix astericus,* that he had discovered in the Maine woods in September. Recognition of the value of his observations came some days later when Dr. Augustus Addison Gould, the Society's eminent conchologist "reported on the communication read at the last meeting from Mr. E. S. Morse of Portland, Maine, on a species of *Helix,* the most minute of any yet observed . . . believed to be a distinct species." Morse's careful study of this tiny creature was published in the Society's *Proceedings* in the following year, when he was nineteen, and marked the first step in his long and distinguished career as a Zoologist. Soon invited to join the Society, he served as an influential and productive member for more than 65 years, directing its activities for some years as President.

But an income was a necessity, and Ned left Bethel Academy and reluctantly returned to his duties at the Portland Company. There, he chafed at his low salary, and complained of an unsympathetic superior "who *cannot* appreciate a drawing." Although the objects that he drew in the course of his work were generally industrial components, castings, and machine parts of a rather routine and uninspiring sort, the necessity for rendering them in a meticulous, disciplined manner that was accurate, visually instructive and easily comprehended by the viewer, was

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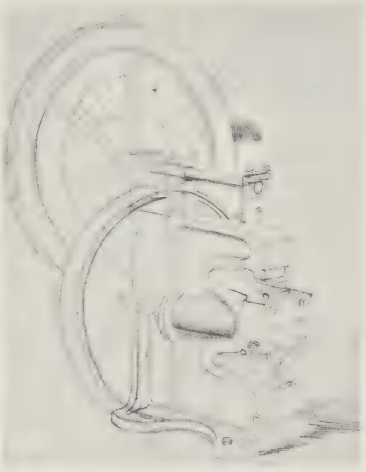
experience that was to serve him in good stead in the near future. Two of Morse's

preliminary sketches from this period demonstrate his abilities in handling varying industrial subjects. The first (No. 2), a section of an elaborate cast-iron fence, shows his



No. 3

characteristic preoccupation with close observation and his sensitivity for minute detail and embellished shape. The second (No. 3), a piece of heavy equipment for cutting and punching steel plate, illustrates not only his competence in depicting three-dimensional form, but also his conceptual skill in showing the function of the object. Both drawings are thought to date to about 1857, when Morse would have been nineteen.

As we have noted, a devotion to nature and interest in her complexities had developed in Morse during his early years. It is significant that he had already amassed an extensive "cabinet" of local shells by the time he was thirteen, and was industriously working to sort them out into taxonomic divisions. Many New England seaport towns, such as Portland, could boast of a long and flourishing history of maritime trade with the most remote and romantic areas of the world, tangible manifestation of which was the passion for collecting unusual shells. Sailors brought back strange and arresting examples of all sizes, conformations, and hues from the distant oceans of the globe, and set them up to be admired in their neat parlors, either on mantles or in vitrines specially made for the purpose. Outside, flanking the front entrance, certain large exotic species were often sedately installed as evidence of the prodigious distances traveled by the man of the house. The craze for shell-collecting, which flourished in Europe as well as America, was such that a brisk and profitable trade developed, and certain rare varieties from the South Seas brought impressive sums from enthusiasts on both continents. This acquisitive interest, with its romantic overtones of distant places, coincided with the research of pioneer American Conchologists, such as Amos Binney and Dr. Augustus Gould of Boston, who were devoting their efforts to systematically analyzing shells and their inhabitants, and working to refine their taxonomic classifications.

A passage in a letter to John Gould, written when Morse was fifteen, reveals how engrossed he was in collecting shells. "*. . . I got acquainted with the boatswain and a sailor on board* Sarah Sands *[a British ship], and they promised to get me a lot of shells. Especially the sailor, for he had been a fisherman. He said that they would go a-dredging . . . and get them alive and perfect and sell them in the Shell stores in Liverpool. . . . He also stated that he got a dozen shells in Egypt . . . and had looked in all the Shell stores in Liverpool and had only seen two like them. . . . Find out whether the folks up there would like any of our shells. . . . Look around and see what chance there is for fossils and report.*" Morse had, as yet, no formal training, and there was no one to direct his scientific interests; but his innate intellectual curiosity and enthusiasm for investigating shells were such that he generated his own inertia. He had no money for purchasing exotic foreign specimens, however, and so he turned his attentions to those species that were closer at hand. He decided to try to make a complete collection of local shells. John Gould became a partner in this ambitious project, and Morse wrote to him on October 29, 1854: "*I have found the* Helix minuta *at the Portland Company's works. I suppose you know where the stable is. On the bank running down to the water near the stable is the* Helix minuta *by the 100,000,000. Yes, sir. The specimens are very nice and I have got a great many of them. I have bought a microscope for $3.00, a very nice one, I tell you.*" He mentions several other species and concludes: "*. . . We will begin that book as soon as you say, the sooner the better.*"

During his period of employment at the Portland Company, he joined the recently-formed Portland Natural History Society, a small but enthusiastic group who shared a common interest in scientific subjects. Here, Morse was able to find a stimulating forum for his own ideas and research, and to come in contact with scientists from other areas. He gave his first paper before the

Society on January 18, 1858, reporting on the "Progress of Conchology in Science." His career had begun to generate its own momentum, and his activities as a naturalist were affirmed several months later when his name was assigned to a species of fungi, *Tympanis Morsei,* in a catalogue prepared by Charles J. Sprague of Boston. Morse was flattered by the attentions of various scientists and shell enthusiasts who came to Portland to admire his "cabinet"; but he was dissatisfied with the course of his own life, frustrated in particular with his job at the Portland Company, where the inexorable daily routine and demeaning wages left him disgruntled and without time to pursue his interests in natural history. Finally, he quit his job and went to Boston, where he took up wood engraving, but there was not enough work for him to make a living, and he reluctantly returned to Portland. There, he was able to find occasional free-lance work that brought in some income, but his financial situation was even worse than it had been before.

On Thursday, May 26, 1859, however, Morse received a letter from Philip P. Carpenter that improved his spirits immediately. Carpenter, an English amateur malacologist, had come to Portland some days earlier to search for local specimens, and had visited Morse and enthusiastically studied his shell collection. The entry in Morse's journal notes: *"Today I received a letter from Mr. P. P. Carpenter, who has seen Agassiz and told him of my taste in Science and talent for drawing. Mr. Agassiz wishes to see me. Shall go to Boston tonight."* Louis Agassiz was, of course, one of the premier figures in the development of Natural History during the nineteenth century. After a distinguished career in Europe, he came to the United States on a lecture tour during 1846-1847, and in the following year took a professorship at the Lawrence Scientific School at Harvard University. Morse could have had no aspiration more lofty than to work under him. Ned went to meet the great man at his residence on Quincy Street in Cambridge. He was greeted cordially and asked to wait in Agassiz's study. *"Soon he was at leisure and we walked over to the museum which is confined to a wooden building and packed close with specimens. Professor Agassiz smoked continually. Cigars. His draughtsmen all smoked. Two of the best draughtsmen in the country. I saw Ad Verrill there and he showed me round. We had a long talk together. I shall see Prof. again in the Fall."* When Morse returned to Cambridge in September, he was offered a position as a student-assistant under Agassiz, for which he was eventually to receive pocket money at first, and later $25.00 a month along with board and lodging. He would be able to attend lectures, and his chief duties were to assist in arranging specimens and doing some scientific research. He went to work on November 2, and his entry for the following day indicates that Agassiz already had him busy doing scientific rendering: *"At Boston this morning; made drawings of* Bulimus undatus *animal while clinging to the side of the glass. This afternoon Prof. set me at work drawing the* Mya arenaria *with the syphon extended. We all dine at Mrs. Magee's, a nice woman. There are about thirty students dine there so we have a room full. At the laboratory this evening."*

About five months earlier, on June 14, the cornerstone of the new Museum of Comparative Zoology had been laid. By November, a section of the large brick structure had been completed, and most of the members of Agassiz's staff had been pressed into service to help move the collections from the old wooden building close to the Charles River over to the new structure. Moving, organizing and reinstalling the specimens in the new building was a monumental project that kept Morse and his fellow assistants busy for the better part of two years. The young men who worked with Morse under Agassiz at this time includes names that were to be among the foremost in American natural history and anthropology in later years, and this fact attests not only to Agassiz's charismatic personality, but also to his ability to inspire and motivate those who studied with him. Among Morse's fellow students were Alpheus Hyatt, A.S. Packard, Jr., F. W. Putnam, S. H. Scudder, and A. E. Verrill. They formed a congenial and more or less intimate group who were all to become eminent scientists. On November 19, the moving of the specimens was in full swing, and an incident occurred that reveals Agassiz's concern for his students and their feelings. *"This afternoon Put, Ordway, Hyatt and myself cleared out the attic. In clearing up the things we bundled them round rather roughly. Prof. came in and saw apparently great disorder. It vexed him somewhat and he spoke, not harsh, but quick. The hardest expression he used was "deuce take it" and told us we handled things as if they were of no value. . . . About half an hour after he left, Prof. came back and sat*

down with us and talked more than an hour socially and even more pleasant, if such a thing was possible. Conversed with each one of us about what a nice time we should have. In fact, I think after he had left it occurred to him that he had spoke to us a little cross and had come back from his house to wipe away any unpleasant feelings that might have arisen from the vexed state he was in."

Everyone was filled with a sense of scientific purpose, and worked diligently at his assigned tasks. In a letter to his mother, Morse depicts the busy, productive atmosphere: *"I am getting along first rate, making good progress in my studies and feeling happy as a* Mya arenaria *at high water. Prof. has given me still another branch in Natural History. He wishes me to pursue it because he wishes me to learn the use of the microscope. The branch is called Bryozoa; all the species are very minute and microscopic. I have made several drawings of some of the species under the microscope which please Prof. much and he was not slow to show his pleasure. . . . Every week a large barrel or can filled with specimens of Natural History from some distant part of the Globe is received at the Museum. Among the material I pick out some beautiful and singular Shells which I select out and put in bottles. Each student takes hold and takes care of his department and we have jolly times over such lots when they come."* One of the fringe benefits of the job was the varied cuisine. On one occasion a moose arrived for stuffing, and everyone had venison steaks. Another time: ". . . we had a nice dinner from specimens received in the museum. Roast goose and onions; rabbit pie; and nine large undescribed species of Baked Trout."

There is an interesting chronological coincidence in the fact that Morse began his work under Agassiz in November of 1859, and that Charles Darwin's renowned work *The Origin of the Species* appeared in the same month. The Boston Society of Natural History soon became a stormy forum for the discussion of the merits of Darwin's ideas, and Morse and his colleagues were privileged to be able to attend the meetings. The chief figures in these debates were Asa Gray, the Harvard botanist, William B. Rogers, the geologist, and Agassiz. Gray and Rogers were outspoken advocates, while Agassiz was, and stoutly remained for a number of years, a skeptic. The *Proceedings* of the Society for February 15, 1860, note: *"Prof. Agassiz made a verbal communication in opposition to the theory of Mr. Darwin, recently put forth in his work on the origin of the species. . . . [Agassiz observed] Animal representatives were as numerous and diversified in early geological periods as now: he instanced the brachiopods. In the lowest beds of the Potsdam sandstone we find* Lingula prima, *and allied species are found in the Silurian, Devonian, Carboniferous, Permian, and Triassic, . . . up to the living species . . . About forty species of fossil* lingulae *are found in these beds; only seven species of living* lingulae *were known to exist until he recently added an eighth* (L. Ravenelli Ag.) *from South Carolina. . . . He thought the persistence of this form through so extensive a period, the last no more perfect than the first, was a fatal objection to the theory of gradual development."*

This remark was to have a profound influence on Morse's later life, for Agassiz's choice of the brachiopods to show the. . invalidity of Darwin's ideas sparked Morse's curiosity, and led him eventually to a systematic investigation of this humble species that substantiated Darwin's contentions. It was, as we shall see, Morse's resolute search for brachiopods that ultimately motivated him to travel to Japan seventeen years later. Agassiz, who obstinately opposed the concept of evolution for a number of years, gradually lost supporters, and soon most of his students also disagreed with his views.

Meanwhile, the work and study at Harvard continued. Morse worked industriously in the museum, and enjoyed the lectures of various professors, including Jeffries Wyman, the anatomist, who was to become the first curator of the Peabody Museum of Archaeology and Ethnology at Harvard in 1866. Morse and his friends had formed their own scientific group, which they named the "Agassiz Zoological Club." They met weekly in the evening, and took turns delivering papers. It would appear from a sketch done by Morse entitled "Agassiz Zoological Club please come to order" (No. 4) that the club had its lighter moments, and was social as well as scholarly in its activities. The camaraderie of the group is apparent in one of Morse's letters: *"Last night we had our regular*

No. 4

Club meeting. It was Putnam's birthday, 21 years old. So when the meeting adjourned, Putnam asked them to leave the hall and come into our room for ten minutes. Then Put asked us out again and we were all surprised to find the large club table laden down with as rich a supper as I ever saw in my life. The piano was piled with bottles of wine, all kinds; we had oysters, a rich pudding and everything one could desire. There were only eleven of us Museum boys and we had a rousing time. Danced, sang, played leapfrog, fenced and made a rousing racket. Did not get in bed till two o'clock this morning. We live a sight happier than kings. We have got our garden ploughed [close by, next to Divinity Avenue], exercise in it every evening an hour. I have not drank any tea or coffee for almost two weeks and have kept my pledge on liquors [not to become inebriated] and always intend to."

Morse labored faithfully through the year. On Nov. 13 the Zoological Museum was finally dedicated, and a month later Morse notes: *"Finished catalogue copying. We have 26,500 specimens of Mollusca in alcohol in the Museum, not including the cephalopods and* Naiades *and many still to be catalogued. These figures represent about 600 species, 400 of which are Gasteropods and 200 Conchifera. Snow and rain. Hard times in Boston."* He had become a confirmed pipe smoker by this time, and his entry for Dec. 11 notes nonchalantly: *"Lecture by Professor Wyman. Put my pipe all lighted in my pocket just before I got to lecture and discovered myself to be on fire before I got into the lecture room. Fire was extinguished without alarm."* On the last day of the year he observed: *". . . ; well, it has gone quick, very quick. My feelings through the year have been happy. My studies have progressed as well as I could wish though most of my labors in the Museum have been in arranging the collection of Shells and Mollusks. I have attended about one hundred scientific lectures and have taken ample notes. . . ."* He had also become engaged to Ellen Elizabeth "Lizzie" Owen, a young lady from Cape Elizabeth, Maine.

In April of 1861, Fort Sumter was fired on, and the Civil War had begun. Morse, although opposed by his mother and fiancée, tried to enlist; but he was rejected on account of his teeth, ostensibly because they were unfitted for biting off the ends of the cartridges used in army guns. Depressed but resigned, he stuck to his work, studying industriously at night, and trying to teach himself French and German. On Nov. 1 he observed: *"Two years ago today I came to Cambridge; it hardly seems so long and yet at times it seems much longer. I have learnt a great deal since I have been here; also have learnt that there is a great deal to learn. I have attended many lectures and have ample notes of the same. I hope that before another two years are gone I shall be doing something to earn a living and also to be married."* He had also begun to take drawing lessons in the evening, at the Lowell Institute. At the end of the year, there was a disagreement with Agassiz, and Morse decided to leave the Museum.

On January 1, 1862 he noted: *"Had a pleasant trip down [to Portland]; sea calm and unruffled. . . . I commence the New Year independent, and poor as a church mouse. I must work hard in the profession I have chosen, that of Zoological draughting, and I shall try to lecture some. At any rate I shall make desperate attempts to earn money."* Morse went to live with his mother. in Gorham, Maine, and found that doing zoological illustrations for reproduction by wood engraving would produce some income. He also began to do lithographs, which were gradually replacing wood engravings as the favored media for scientific illustration.

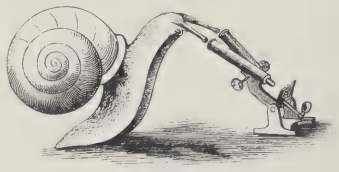
Morse was married to "Lizzie" Owen on his twenty-fifth birthday, June 18, 1863. They struggled to make ends meet, a circumstance that was not to improve substantially until a decade had passed. *Observations on the Terrestrial Pulmonifera of Maine, Including a Catalogue of All the Species of Terrestrial and Fluviatile Mollusca Known to Inhabit the State,* Morse's first book, was published in March of 1864. It included ten plates and one hundred and four small line drawings, all by the author. Although it was a scholarly success (William Stimpson of the Smithsonian Institution noted: "With its great elaboration and full illustration it beats anything yet done in Europe on the same subject."), it provided little income. Morse was also pursuing his career as a teacher and lecturer with some success: *"I lectured every night in the week (for two weeks at Norway, Paris, and Paris Hill). It was very rainy and muddy most of the time and in two of the places I had small audiences. Everybody personally expressed their great interest in the lectures . . . I made about $50.00 above expenses. . . . A course of lectures is engaged for Westbook Seminary for $50.00 cash. I commence a course at Gorham tomorrow night. In about two weeks I expect to commence a strictly scientific course of eight*

lectures before the Doctors and Medical School in Portland." Morse developed into a fine speaker who, perhaps following Agassiz's example, illustrated his talks with lively and instructive diagrams that he drew on the blackboard as he was speaking. He became famous for his tour-de-force demonstrations, in which he drew simultaneously with both hands, a clever talent that seems invariably to have fascinated audiences wherever he lectured. He stayed briefly in a boarding house in Salem at this time, and a humorous sketch entitled "Proposed plan of economical bath-tub in Mrs. Baker's boarding house" (No. 5) suggests that the proprietor may not have been particularly generous with the hot water for bathing.

No. 5

In 1867 Morse's fortunes took a dramatic turn for the better. The great banker and philanthropist George Peabody made a gift of $140,000 to purchase East India Marine Hall (owned by the East India Marine Society) and to establish a separate institution, within whose charge would be placed the collections of the Society, described as "natural and artificial curiosities, particularly such as are to be found beyond Cape of Good Hope or Cape Horn," and the ethnological and natural history collections of the Essex Institute. The new institution was to be called the Peabody Academy of Science, and became in 1915, the Peabody Museum of Salem.

On May 16, Morse together with three other former students of Agassiz—Hyatt, Packard, and Caleb Cooke, were made members of the staff under the new director, F. W. Putnam. Morse was to be associated with the institution almost continuously for the rest of his life. Morse and his colleagues Putnam, Packard, and Hyatt decided to pool their talents (and their small cache of funds) in a new venture, the publication of a monthly journal, the *American Naturalist.* It was published until 1878, and was the first journal of its sort designed to appeal to the popular interest in natural history. The talents of each man were put to the best use, and Morse, in addition to contributing articles, did most of the meticulous illustrations. The first issue includes a lively, instructive article by Morse, "The Land Snails of New England," and a delightful drawing that embodies Morse's dedication to his subject, his irrepressible sense of humor, and his superb gift for illustration (No. 6).



No. 6

As one might expect, Morse kept himself well occupied in the next years. He worked industriously at the Peabody Museum, systematically organizing the collections and installing them in instructive, logically-conceived exhibits. He also shouldered much of the responsibility for publishing the *American Naturalist;* held posts at both Bowdoin College and Maine State College, where he lectured on zoology; and traveled extensively for as many as five months of the year delivering lectures on various aspects of Natural History. According to a newspaper description: "*He draws outlines of mountains, valleys, crevasses in glaciers, insects . . . with remarkable celerity and accuracy. He seldom breaks the thread of his remarks while drawing but keeps on in a rapid and distinct tone of voice, saying more in one hour and saying it better than a very large majority of speakers. . . . He talks in a friendly and pleasant way to the people, and not to the ceiling or to a manuscript or to some invisible thing way beyond the audience. . . .*" Recognition of the most complimentary sort of his abilities as an informative, accomplished speaker came in 1871, when he was honored by being invited to deliver a series of twelve lectures at the Lowell Institute in Boston. He spoke on "Natural History, with Special Reference to the Lower Animals of New England." After his initial lecture he wrote his friend John Gould: "*My first Lowell lecture came off last night. . . . The audience was large and attentive. Hope I can keep them so through the rest. The tickets were applied for in a rush, 1,400 being distributed in little over an hour.*"

Despite his varied responsibilities and busy schedule, he nevertheless found time to teach extensively and to pursue his own research. In 1870-71 he lectured on zoology at Maine State College in Orono, Maine; from 1871-74 he was professor of comparative anatomy and zoology at Bowdoin College in Brunswick (where he received an honorary

doctorate in philosophy in 1871); during 1872-73 he was on the faculty of Harvard College; and in 1873 he was invited to join the staff of Agassiz's celebrated Summer School on Pennikese Island in Buzzard's Bay, Massachusetts. The latter was significant in that it was the first of those summer schools for naturalists that were subsequently to become widespread in this country, and another example of Louis Agassiz's foresight as an educator. The participants were limited to fifty, and most became great teachers and scientists in the following decades. It was, of course, a mark of recognition and honor to be included among the faculty, and it also gave Morse a brief, final opportunity to assist his great mentor, who died four months later, in December of 1873. A photograph of Morse, taken at about this time, shows him in a stylish period pose (No. 7), his congenial yet intense expression set off by two appendages that were already habitual: his thick, spade-shaped beard, and his ever-present cigar.

No. 7

The entries in Morse's bibliography for the decade beginning in 1867, when he joined the newly formed Peabody Academy of Science (now the Peabody Museum of Salem) demonstrate his sedulous devotion to scientific research, and show how productive he was in reporting his findings. The numerous entries range over a broad variety of subjects: reports on the contents of ancient Indian shell-mounds, observations on glacial phenomena and Botany, remarks on various animal and insect forms, articles supporting Darwin's ideas on Evolution, and studies of terrestrial and marine fauna. These appear, for the most part, in the *Bulletin of the Essex Institute,* the *Proceedings of the Boston Society of Natural History,* and the *American Naturalist,* where Morse not only contributed articles, but also produced a good number of the illustrations. Despite the diversity of scholarly interests that mark the writings of this period, however, there is one subject that is a perennial preoccupation, one might even say an obsession—this is the Brachiopods.

Morse had produced his first paper on the subject as early as 1862, but in 1870, he published a careful study, "The Brachiopoda, a Division of Annelida," in which he argued convincingly, and in considerable detail, that the Brachiopods were, contrary to traditional taxonomy, not Mollusks but actually marine worms with shells that formed a group related to the tubiculous Annelids. This discovery, which resulted in the reclassification and clearer understanding of the nature of the Brachiopods as a species, was to become Morse's most significant contribution to scientific knowledge. Earlier in the year, Morse and a colleague, the entomologist Alpheus Packard, traveled south as far as Beaufort, North Carolina, to collect specimens. Morse was in search of *Lingula,* a type of Brachiopod that he wished to study in its living state (No. 8). It took a week of dredging

No. 8

before he finally found some specimens, and in his spare hours he filled a small notebook with carefully observed sketches of the local scenery and inhabitants, such as "Aunt Phenie," who posed patiently for him (No. 9), and an officer from nearby Ft. Macon, who seems to have played a spirited banjo (No. 10).

In 1873 Morse gave a long paper before the Boston Society of Natural History entitled "The Systematic Position of the Brachiopoda,"

which was subsequently published in the Society's *Proceedings*. In it, he enlarged on the reasons for his reclassification of the Brachiopods, drawing upon his com-

No. 9

No. 10

prehensive knowledge of the research of other Zoologists, and presenting a large body of systematically organized evidence that demonstrated even more conclusively the logic of his arguments. J. S. Kingsley, in the *Proceedings of the American Academy of Arts and Sciences* (Vol. 61, Nov. 1926) summarized Morse's studies of the Brachiopods as follows: *"Possibly his most important papers were those relating to the Brachiopoda, a group which, when he began to study it, was all but universally regarded as molluscan, rather closely related to the oyster and the clam. Almost immediately he saw the bearing of certain facts of structure, the significance of which had been overlooked by his predecessors. As these animals have two halves or valves to the shell, this resemblance to clams had obscured all else. Morse showed that this was not a true resemblance, for the valves of the clam are right and left, while those of the Brachiopods are dorsal and ventral. Then he took up the study of the internal organs and the development of the eggs, making trips to Eastport and to the North Carolina shore for his material. Every fact he found confirmed him in his conclusions, now universally accepted, that these animals are far more closely related to the common earthworm than to any mollusc."*

No less a personality than Charles Darwin himself wrote to Morse, complimenting him on his research: *"I must have the pleasure of thanking you for your kindness in sending me your Essay on the Brachiopoda. I have just read it with the greatest interest, and you seem to me (though I am not a competent judge) to make out with remarkable clearness an extremely strong case. What a wonderful change it is to an old naturalist to have to look on these "shells" as "worms," but, as you truly say, as far as external appearance is concerned, the case is not more wonderful than that of cirripedes. . . . With the most sincere respect for your admirable labours, I remain, dear Sir, Yours faithfully, . . . P. S. Your woodcut of Lingula is most skilfully introduced to compel one to see its likeness to an annelid."* Recognition of the value of his work filled Morse with pride, and he observed to John Gould: *"On the strength of one Brachiopod alone I reasoned out its position in the Animal Kingdom months before I had ever seen a living* Lingula, Rhychonella *and* Discina. *It isn't every day that a prominent class of animals is walked out of one branch and into another. I will confess that when I got Darwin's letter I felt for the first time amply repaid for all the study I had spent on it."*

But Morse still felt that his investigations of Brachiopods were impeded by the limited number of forms available to him. He had searched diligently along the Atlantic Coast, from the Gulf of the St. Lawrence to the Bay of Fundy, and south as far as North Carolina, but each of these areas produced only one species. However, it had come to his attention through the communications of colleagues, such as William H. Dall of the Smithsonian Institution, and an English friend, Thomas Davidson, that the waters of the Japanese Archipelago were rich in Brachiopods. Morse's interest was undoubtedly aroused by information such as this brief passage in a letter from Davidson, dated 3 Dec., 1871: *". . . I am very hard at*

work now on some American and Swedish new fossil genera of Brachiopods, but the want of a good anatomy of the last two genera is much felt in the determination of the muscular and other impressions we meet with in the Abolus *and* Trimarella *groups. I sent you a few days ago a little paper with two plates on Japanese recent Brachiopods but I hope to extend that subject next spring, as Capt. St. John of H. M. Ship Sytria has been dredging in 50 fathoms and upwards off the coast of Japan and writes that he has a good many shells, and I hope some may be brought back in some preserving fluid. I have heard nothing of Mr. Dall's recent dredging nor have I yet seen his new paper in the American Journal of Conchology. I remain, very truly yours, . . ."*

Morse's lecture tours kept him busy, and provided a welcome supplement to his modest income. In the spring of 1874, he travelled all the way across the country on the transcontinental railroad, completed only five years before, and it was in San Francisco that he seems to have heard for the first time of the abundant variety of Brachiopods that flourished in Japanese waters—that there might, in fact, be as many as thirty, or even forty species there. The attraction was, of course, irresistible, and despite the great distance and cost, Morse resolved that nothing would keep him away from Japan. Predictably enough, finances were a stumbling block, and three years were to pass before he was able to make the trip. The intervening years were as busy as ever. Morse hurried back from California in time to teach again at Pennikese, and then returned to his lecturing and research. In January of 1875 he wrote to John Gould: . . . "Have put off my Japan trip till September, as I cannot finish the little book for two or three months yet. It is an awful job."

Morse was working on his *First Book of Zoology*, published soon after by D. Appleton and Company. It is a small, beautifully conceived, lucidly written, and admirably illustrated textbook for the young student of Natural History, and its success can be demonstrated by the fact that the First Edition had sold out in ten days, a Second Edition had appeared before the end of the year, and that it was later translated into both German and Japanese. It was enthusiastically reviewed. The Chicago *Tribune* for September 18, noted: *"At last a textbook of zoology has been prepared for the use of schools which displays the rare quality of common-sense in the construction of its plan. Its author has not gone to books or art but to Nature for a key to the best method of instructing children. He does not forget that he was once a boy himself, with a fondness for watching spiders spinning their webs and ants digging their holes and snails crawling about with their homes on their backs; and with a longing to know, without a deal of discouraging study, the life-history of these odd little creatures. The book follows the pupil, rather than leads him; relying upon it that when Nature inspires a child to study her works, the instincts are to be developed instead of being repressed."* The illustrations are among Morse's most meticulous and instructive renderings of fauna (No. 11), and are ideal as pedagogical models.

No. 11

Finally, in the spring of 1877, Morse found it possible (with the help of a loan from his unwavering supporter, John Gould) to set out for the remote islands of Japan, halfway around the world.

He expected that it would be a three-month journey. Once again he made the long railroad trip across the country to San Francisco, where he boarded the steamer *City of Tokio* on the 29th of May. The voyage across the great Pacific was a protracted but apparently uneventful one, and *City of Tokio* finally came to anchor in Yokohama harbor on the evening of June 17th. She lay some distance from the shore, as the port was still largely undeveloped and proper docking facilities remained to be built. A small boat was sent out to pick up the passengers, and Morse had his first chance to observe several of the natives.

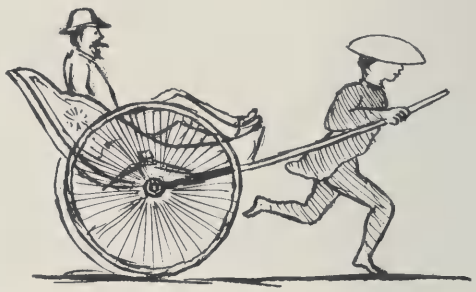
"The boat was a long, clumsy affair sculled from the side by three Japanese, their only clothing consisting of a loin-cloth: little short fellows they were, but immensely strong, for they easily brought down on their naked backs the heavy trunks and other packages. How vigorously they worked

sculling us two miles to the shore! And such a peculiar series of grunts they made, keeping time with each other with sounds like hei hei cha, hei hei cha, *and then varying the chanty, if it were one, putting quite as much energy into the grunts as they did into the sculling. The noise they made sounded like the exhaust of some compound and wheezy engine."*

Morse was understandably relieved to get back on dry land, for he comments: "Finally the boat grounded, and I jumped out on the shores of Japan tickled enough to yell, which I mildly did. In landing, you feel a curious exaltation of accomplishment." After completing customs inspection, the passengers boarded jinrikisha, and were promptly taken off to their hotel.

Filled with intense curiosity about his unfamiliar surroundings, Morse rose early the next morning. It was June 18, and the occasion was not without an auspicious note, for it was his thirty-ninth birthday. The day was also a propitious one in a more important sense, however, for it marked the beginning of a new and significantly different phase in his life.

Immediately after breakfast, Morse set out to investigate the town, noting down in his journal: *"Never will these first impressions of wandering through the streets of a Japanese town be effaced: the odd architecture; the quaint open shops, many like the cleanest cabinets; the courtesy of the attendants; the novelty of every minutest object; the curious sounds of the people; the delicious odor of cedar and tea filling the air. About the only familiar features were the ground under our feet and the warm, bright sunshine."* After several hours of tramping about, Morse realized he was not only fatigued, but also lost. To get back to the hotel, he hired a jinrikisha, and the ride seems to have been one of the highpoints of his first morning in Japan. He notes that at first he *"felt a sense of humiliation in being dragged by a man and should have felt less embarrassed if I could have got out and exchanged places with the naked-legged human. But this feeling soon wore away, and the exhiliration of having a man running ahead like the old scratch the entire distance to the hotel, without stopping, was as surprising as most of the experiences of that morning."* Morse's journal is filled not only with lively commentary, but also with instructive sketches, such as his animated depiction of himself, with his beard, cigar, and pith helmet, being pulled briskly along (No. 12). He notes further: *"The wonderful endurance of these men exceeds belief, for we are told that they will run for miles in this way, hour after hour, without apparent fatigue. Jinrikisha riding is a constant delight; a gentle up-and-down oscillation of the vehicle is all the motion perceptible. You really travel at a good speed, your horse never runs away, and when you stop he guards your property."*



No. 12

Soon after his arrival in Japan Morse took the train up to the great capital city of Tokyo, some eighteen miles distant. The stretch of track between Yokohama and Tokyo was the first section to be built in Japan, and had been completed only five years earlier. As the train passed through the neighborhood of Omori, not far from the shore of Tokyo Bay, he noticed that the construction of the right-of-way had necessitated cutting through some low mounds, and that the digging had uncovered quantities of shell remains. Morse, who had himself excavated similar mounds in North Carolina, Massachusetts and Maine, recognized them immediately as the refuse sites of prehistoric cultures, known euphemistically among archaeologists as "kitchen middens." Morse's objective in going to Tokyo was to present a letter of introduction to Dr. David Murray, who was one of the influential foreigners employed in high positions by the Japanese Government. It was Morse's intention to ask the help of Murray (1830-1905), who had held the important post of Advisor to the Ministry of Education since 1873, in gaining permission from the authorities to travel beyond the port cities (to which foreigners were generally restricted) into other areas of Japan in order to pursue his research. Murray, who soon became a close friend, appears to have been one of the first people Morse confided in, and he was told of the discovery at Omori. In later months, Morse and a group of his students excavated at the site on numerous occasions and they unearthed a substantial number of ancient implements—objects made of horn, bone, and stone, as well as an impressive body of distinctive pottery vessels

and fragments. Assisted by a coterie of enthusiastic followers, Morse studied these objects in his habitual manner, classifying them carefully into typological groups that cast substantial light on the Neolithic people who had utilized them. The results of these efforts, *Shell Mounds of Omori*, was published as Volume I, Part I, of the Memoirs of the Science Department, University of Tokio. Completed in July of 1879 it was the first scholarly book devoted to a scientific subject produced by the young university, and served the important role of stimulating interest in two completely new disciplines in Japan, archaeology and anthropology.

After meeting Dr. Murray, Morse was shown around the Imperial University, where he was intrigued to see the students, all dressed in their traditional garb, diligently studying *Gray's Botany*, and performing experiments in chemistry and physics. He was also given an interview with the Director of Educational Affairs, who spoke through an interpreter, and impressed Morse by his formal yet pleasant demeanor. Later, Murray assured Morse that he had made an excellent impression. In the afternoon, Morse was taken off to see the wrestling bouts, "Sumo," an experience that he carefully recorded. *"A crude gallery, or rather two galleries, ran round the building and were equally primitive. In the center were four upright posts between which was a raised portion and a ring of nearly twenty feet in diameter, with a canopy of red cloth above. At each post there sat an old Japanese, evidently some sort of judge, while a stern-looking fellow, highly dressed, acted as umpire. To see the huge and corpulent wrestlers come into the ring straddling their legs, lifting them up and down as if they were trying them, slapping them vigorously, and then when ready stooping down for a few minutes facing each other, examining each others' muscles, for they were entirely naked save for a loin-cloth, was a novel and interesting sight. When they finally got ready they rested their hands on the ground and then suddenly sprang at each other, the feat being to push or throw one or the other out of the ring."*

Murray seems to have taken a liking to Morse, for he soon invited him to come along on an expedition to Nikko, a lovely mountain retreat where the famous Tokugawa mausoleums are located. It was on this journey that Morse had his first chance to get away from the large cities of Yokohama and Tokyo, and see something of the countryside. To get to Nikko, the party took the stage as far as Utsunomiya, a distance of sixty-six miles, and then transferred to the ubiquitous jinrikisha for the final leg of the trip. About two hours after leaving Tokyo, the stage (which was actually a small, cramped wagon, with seats running on both sides, so that the passengers frequently bumped knees) passed through a town where a market was in progress.

"As we went through this crowd the driver blew a high-toned blast on a small trumpet and the betto *who ran ahead gave a curious whoop; in fact, when anyone appeared in the road ahead, either on foot or in jinrikisha, the driver and the* betto *would yell and howl as if we were going at the rate of an express train and everybody was deaf and blind. We could hardly understand this exhilirating racket until Dr. Murray explained to us that it was only within a few months that the stage-line had been established and the whole enterprise was a great novelty."*

Morse, in his characteristic manner, observed everything diligently, from the way a piece of unusual agricultural machinery was used, to the neat, orderly aspects of the houses and their surroundings.

"For miles we went through a region of rice-fields, and here I saw the waterwheel used as a tread-wheel for irrigating purposes. (No. 13) shows a man coming down the road with the wheel and box carried in the usual manner. In the same sketch is a man treading the wheel and raising water from the ditch in the rice-field. The box is first fitted into the embankment, the wheel drops into appropriate sockets, a long pole is driven into the mud alongside the wheel, and holding on to this the man keeps his equilibrium and turns the wheel with his feet.

No. 13

One of the many delights of riding through the country are the beautiful hedges along the road, the clean-swept walks before the doors, and in the houses everything so neat and the various objects in perfect taste; the dainty teacups, teapots, bronze vessels for holding the burning charcoal, beautiful

grained panels, odd knots from trees, and woody fungus hollowed out to hold flowers. And all these beautiful things are in the houses of the common country farmers."

It was late June, still relatively cool, and a pleasant time to travel. The infinite number of novel sights fascinated Morse and he was impressed by the courteous behavior of the country people. An elderly lady rode next to him for some miles, and he was delighted to find that genteel communication was possible despite the language barrier. *"I got into conversation with her hardly knowing a word of the language, but by pantomime and by drawing rude diagrams we managed very well. She had never conversed with a foreigner before or met one. The interesting questions she asked were precisely of the nature of those an intelligent and refined old lady would ask of a foreigner in our country."* The party finally reached Utsunomiya late in the day, checked into a hotel, and Dr. Murray's Japanese cook prepared everyone a fine dinner in Western style for, as Morse notes: "none of us had yet become accustomed to Japanese food." Dr. Murray, an affluent civil servant, had had the logistical foresight to bring along a substantial supply of necessities—canned soups, and other imported provisions, as well as some bottles of nourishing English ale.

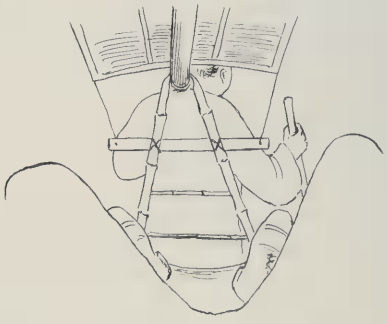
Everyone was up early the following morning, prepared for the twenty-six mile junket by jinrikisha. Along the way they admired the noble stands of cryptomeria that flanked the road, and observed the morning mail on its way to Tokyo, carried in a black cart with the Japanese flag prominently affixed, and pulled by a man running at full speed (No. 14). Morse notes that "The runners are changed often and make better time than a horse." The party

No. 14

took rooms in the best inn in Hashi-ishi, near Nikko, for several days. The next morning they were off to view the celebrated temples and shrines of Nikko. Morse was deeply impressed by the buildings and their superb natural setting. *"It is useless to try to give an idea of the magnificence of these wonderful structures, and what makes it all the more impressive is that the entire group of buildings is on the steep slope of the mountain-side in a wild forest of primeval pines, while the under-growth of tangled vines and flowers, throwing out the sweetest perfumes, gives the richest framework for these elaborate works of man. This wild forest comes up closely in contact with the foundation of every wall and temple. It is as if the exact boundaries of the Nikko temples had been outlined in this deep forest and everything had been cleared away and the temples and walls then built."*

It is unclear how long the party sojourned at Nikko, perhaps two or three days. It was an overwhelming experience for Morse, who admitted: "I must confess the utter inability of doing the slightest justice to the temples and tombs, so wonderful are they, so elaborate, so vast and magnificent." Morse may well have been among the earliest foreigners to have the opportunity of visiting the site, and he notes: "No drawings have yet been made of these marvelous structures. One gateway is named in Japanese the "whole day gate," because one can examine for a whole day the details of its elaborate carving." But he was not long intimidated by the splendor of the structures, and he soon was busily making notes and doing sketches of the elaborately carved polychrome panels and impressive stone balustrades.

On July 2nd the party started out for Chuzenji, two thousand feet above Nikko and some eight miles distant. Because of the steep incline and rough terrain, everyone went on foot, but a simple palanquin had also been hired, and the members of the party rode in this device when they tired of walking. Although Morse only rode a short distance, claiming "it did not seem like mountain-climbing to be carried by men in this way," he did make a brief but informative sketch to record the experience (No. 15).



No. 15

Along the road they noticed a number of stone images, interesting manifestations of folk religion, ". . . most, if not all of them, images of Buddha, and many of them broken, some toppled over, and all lichen-covered and bearing other evidences of age. Some were mounted on stone pedestals, and one had had small stones piled on its legs and arms, each representing a prayer."

The locale was inspiring in its rugged, scenic beauty, precipitous mountain vistas and turbulent streams; and for a naturalist like Morse every side revealed some new and interesting variety of fauna: exquisite land shells, wood frogs whose protective coloring matched a certain large green leaf perfectly, amazing swarms of dragonflies, and multitudes of ephemera and other lively water insects. *"After a long, fatiguing, but glorious tramp we reached the shores of Lake Chuzenji, a body of water, two miles across, bordered on one side by mountains fifteen hundred feet high or more, with abrupt slopes, and to the north the famous Nantaisan, eight thousand feet above the sea, rising abruptly from the lake. The lake bed was evidently a volcanic crater."*

Morse and Murray rose at five o'clock the next morning, for they wanted to climb Mt. Nantai. They received their pilgrim's climbing staffs at the temple at the foot of the mountain, and set out on what was to be a grueling test of their endurance. *"It was a direct climb of four thousand feet in altitude, and while there was not a step of the slightest difficulty,—no stooping, or crawling on knees, or digging toes or fingers in precipitous sides,—it was the most fatiguing and exhausting mountain climb I ever made. The path was very steep and continuous; no level ridge or plateau to give one a rest. And so we went up, up, the blue waters on Lake Chuzenji glistening through the trees and gradually other mountain peaks coming into view. After what seemed an interminable time we came to the line of spruces, and then the flowers were more familiar. We saw the bunchberry flower, only smaller than ours, and a berry that suggested the blueberry, not ripe, however, and other flowers that belong to a northern flora, only strangely mixed up with semitropical types."* They spent an hour on the summit, enthralled by the view, with noble Mt. Fuji, a hundred and fifty miles away, dominating the horizon to the south. The descent, with its long flights of unrelieved steps, proved more tiring than the climb. After an hour's rest at the base of the mountain, they started off for the village of Yumoto, eight miles distant, which they reached at eight in the evening.

At Yumoto, a small hamlet with natural hot springs, Morse had his first exposure to Japanese bathing customs. *"It was dark when we reached the place, and we had seen nothing, and to wake up in the morning and look out on the magnificent prospect, the odd buildings, the people in their curious clothes, or no clothes at all, with the strange odors intermingled with the sulphur odor, the unusual sounds, was as if we had landed on a different planet. The baths are stretched along the side of the street; rude wooden sheds open in front, within which are the tanks, which are eight feet long and five feet wide, the water pouring out from a wooden pipe at the inner side of the tank, or simply running over the edge of the tank from the spring just behind. In one six or seven persons were bathing, in a crouching position, with the water up to their shoulders, at times dipping up water and pouring it over their heads. But the most striking was to see both sexes in the bath, young and old, and the whole affair open to the street along which many were passing, though a low screen partially intervened."* The waters of the natural hot springs at Yumoto are noted for their curative powers, and Morse was surprised (and not entirely convinced) when he was informed that individual springs had special therapeutic qualities: *"One spring was supposed to be good for pain in the chest and leg, another was good for stomach disorders; another for weak eyes; and another for troubles in the head, and so on. Each spring was supposed to have different curative virtues!"* Murray expressed an interest in the high temperatures of the individual springs, so Morse, perhaps in the hope of discovering some scientific truth, proceeded to measure each one. *"It was an extraordinary experience going along the road, Dr. Murray with his notebook, and I entering these baths one after the other, standing on the corners of the tanks, and reaching out the thermometer to the stream that trickled from a spout, and numbers of men, women, and children following us curious to see what we were about. They did not mind the bathers nor did the bathers mind them, as indeed they should not. It was the height of modesty and simplicity; no prurient prudes in the crowd."*

Morse's admiration for the behavior of the Japanese people and their customs is, of course, a pervasive theme in his writings, and he frequently contrasts these with aspects of his own culture. *"Here I must*

digress for a moment and express some plain truths about the subject of nakedness, which in Japan for centuries has not been looked upon as immodest, while we have been brought up to regard it as immodest. The exposure of the body in Japan is only when bathing and then everbody minds his own business. . . . and I can positively avow that we seem infinitely more immodest to the Japanese than they do to us. The sight of our people in low-necked dresses dancing together in the waltz, a dance they do not have; kissing in public places, even a man greeting his wife with a kiss in public, and many other acts cause the Japanese to regard us as barbarians. If in going along the street one looked into the bathing-tank, the bathers would probably comment on it in much the same way that we should if a greenhorn were to look into a dining-room window while we were at the table. There are a few acts of theirs that seem very immodest to us; there are many of our acts which seem very immodest to them."

After a cursory investigation of Lake Chuzenji for fresh-water fauna, they set off on the return trip to Hash-ishi, a distance of seventeen miles. It was the Fourth of July and Morse, amused by the incongruity of the situation, felt obliged to sing the National Anthem and other appropriate songs as he tramped along in search of insects in the tranquil countryside of this exotic land (No. 16).

No. 16

Back at the hotel, the party celebrated the occasion with a festive party in which they ". . . drank the health of His Imperial Majesty the Mikado, and our President and the dear ones at home, sang patriotic songs, and drummed on the table, amazing and delighting the people of the hotel who peeped at us through the screens." But it seemed time to get back to Tokyo. "Our provisions were giving out; the crackers were all gone, though the claret and beer still held out, an indication of our extremely temperate habits."

A steady rainfall for the next two days discouraged travel and gave everyone a chance to recuperate and catch up on their letters and journals. Despite continued rain, they finally set out for Tokyo: ". . . our jinrikishas with the tops up like an old-fashioned chaise, and a sheet of oiled paper tied on in front to keep out the rain. We were literally locked up, and away we went with an exhilarating line of seven jinrikishas, . . ." But the wind increased gradually, and the weather worsened. By the time they reached the village of Nowata, the roads were already quite bad. Here, they finally were able to hire a boat to take them the remaining sixty miles to Tokyo, by way of the Tonegawa, a river that emptied into Tokyo Bay. It was late at night when they embarked, and the boatman warned them that the last time he had gone down the river he had been robbed by brigands who frequented the area; but Morse and Murray assured him that they were perfectly capable of defending the boat. Nevertheless, they felt a sense of apprehension that did not leave them until the sun came up the following morning. Morse remarks: "The boatman had probably lied about the river pirates so as to get higher pay. After a few years residence in Japan one realizes that a man is safer in the wilder regions of Japan at any hour, night or day, than in the quiet streets of Salem, or in any other city in our country."

By four in the afternoon they had run into a head wind that slowed their progress, so they transferred back to jinrikishas for the last ten miles. *"We passed many beautiful hedges, in one or two instances a double hedge, the inner one of trees densely growing and squarely trimmed and reaching halfway up. It was quite effective, as it lined the street for a considerable distance. The Japanese gardener has a way of binding the branches to bamboo frames until the twigs assume the position permanently. I saw a large gingko tree that spread out like a fan in one direction at least forty feet wide, while in the other direction it was not more than three feet through, though it was so densely leaved that no light came through it. These people lead the gardeners of the world in the way they make the trees behave."* Foreigners were still rarely seen in rural Japan at this time, for their movements were carefully regulated. *"In a few instances we have noticed wise-looking elderly men watching us as we passed them, and gravely shaking their heads in retrospective contemplation, as if they were of the old school and believed the country was going to the devil in permitting the long-excluded and detested foreigner to go freely where he pleased.*

I could read all this in the expressive looks they bestowed upon us. No such freedom, however, is permitted; the foreigner cannot go without a passport twenty miles beyond the limits established for the four treaty ports without being arrested and turned back. To go into the interior of the country the passport must not only specify the actual route to be followed, but the number of days he is to travel. At every inn where we stopped our passports were taken by the innkeeper, or some officer, carefully copied and returned to us with profound bows of apology for troubling us."

Soon after Morse got back to Tokyo, he was offered an appointment at the Imperial University. The authorities were, of course, aware of his reputation as an eminent zoologist and educator, and they had been impressed by his unpretentious demeanor and the infectious enthusiasm he brought to scientific research. He was, in short, an ideal candidate for their newly-formed faculty, and he was promptly invited to organize a department of zoology and also set up a museum of natural history at the University. But Morse had only planned to be away from Salem for three months, and he had already contracted for a series of lectures during the winter. The University authorities were anxious to have him, however, and were willing not only to give him a leave of absence from November to March, so that he could carry out his commitments at home, but also agreed to help him in his research on brachiopods before the fall term commenced. Moreover, the salary offered was so large and the fringe benefits so generous that Morse realized that he might well be able to pay off the mortgage on his house, and also put a tidy sum aside during the two years of his contract. The agreement stipulated that he could bring his family back with him in March, and that all their expenses would be covered. Excited by his prospects, Morse wrote to John Gould, outlining his plans. *"I shall be home this winter for two months lecturing and it will be only the winter after next that I shall be away from my lecture business. I hope, however, to get up lectures on Japan which will go like hot cakes, but above all I will have unparalleled facilities to study tropical life and shall make some important scientific contributions. Then I hope to write a book on Japan . . . and with sundry articles for* Popular Science Monthly *I hope to get finally my head above water. I don't want Nellie to know about his till I get home. . . ."* On the following day, July 12, he began to draw his salary.

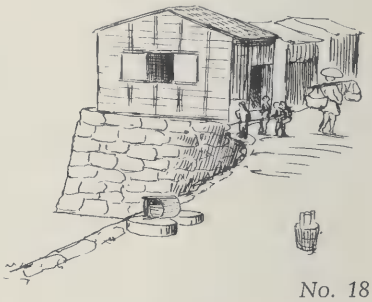
But Morse was chafing at the bit, anxious to begin his investigations of the shellfish in Japanese waters. The university authorities had offered to provide him with a temporary seaside laboratory and several assistants during the summer months, and Enoshima, a fishing village seventeen miles south of Yokohama had been tentatively selected as the location. On July 17 Morse and a Japanese colleague set out from Yokohama by jinrikisha to inspect the site. They arrived late in the afternoon and took accommodations at a local inn. After supper they went out to look for a proper place for the laboratory, and before nightfall they had rented a small, unfurnished building. Enthusiasm for the scenic beauty of the locale and its topography are apparent in Morse's description:

"Enoshima is an abrupt and precipitous island connected with the mainland by a long, narrow sand bar which is covered at high tide. The island bursts suddenly into view, for just before leaving the mainland we ascend a long sand hill and at the crest the island stands out of the ocean with the sand beaches fringed with breakers as they come rolling in from the Pacific. In crossing this long strip of sand I saw for the first time the shores of the ocean. I had not allowed myself to look at the shore before, as there were so many things to be seen on land. The semi-tropical shells that I had cherished in my cabinet as a boy or had been familiar with in museums were here to be picked up in quantities: Cypraea, Conus, *a big* Dolium, *and other southern forms. The delight in store for me in seeing these creatures alive may be imagined. The village of Enoshima is massed together in one steep, narrow street, so steep, indeed, that at intervals there are stone steps in flights of six or eight, at short distances apart. The street is not over ten feet wide and the wooden tea-houses are two and even three stories in height, so that the street is comparatively dark. The vertical signs of wood and the vertical strips of cloth of various sizes and colors shade the street still more and the sun never reaches the surface, which is always wet. The entire street is lined with shops on both sides, and many of them are stocked with souvenirs made from the shells, sea urchins and other objects collected on the shore."*

Three days later, on July 21, some of the equipment had arrived, and Morse was ready to begin his research; the occasion marked the founding of the first marine biological laboratory in Pacific waters.

The little seaside station was, in fact, one of the first centers of its sort in the world, preceded by only a few years by Woods Hole in the United States and three other locations in Europe. It was cramped and the facilities were primitive, (No. 17) but the superabundance of living aquatic materials that were easily dredged up nearby made it an ideal research location, and Morse and his small band of students were filled with investigative zeal.

No. 17



No. 18

Western accommodations and foods were, of course, unavailable at Enoshima, and certain adjustments to indigenous ways and the native cuisine were necessary.

"A hammock that Dr. Murray had lent me I hung from a post in my room to a post on the piazza. Though I was assured there were no mosquitoes they came in swarms, and I covered my face with a towel and then a thin coat; but it was too hot to endure this covering, and everytime I moved or got up to fix things my pillow, consisting of three waistcoats and trousers folded in a shirt, would drop out and I had to rearrange it. Finally I gave up in despair, and my Japanese boy brought me a mosquito netting almost filling the entire room, and I slept on the floor.

. . . a famous preparation of the Japanese; namely, cold raw fish, cut in thin slices from the fish while fresh and alive. The idea of eating raw fish is particularly repulsive to our taste, though we eat raw oysters; nevertheless, foreigners soon get accustomed to it. The sauce made of fermented bean, barley, and some other grain seems to have been specially created for this kind of food. I ate a good meal of it and must confess that my first experience was fairly good, but my Japanese friend consumed with great gusto all that was left in the dish. It was hard work eating on the floor and my elbows soon got tired and my legs tired and awfully cramped."

The little structure selected for the laboratory sat at the water's edge (No. 18), and had two windows that provided views of the shore and the sandbar leading to the mainland. Morse hunted diligently for the supplies and apparatus necessary for his research, and by digging through junkshops and the firms that handled foreign goods in Yokohama, he soon had asembled what he needed—alcohol, jars, copper cans, kegs, seives, and dredging equipment. The first try at dredging fell somewhat short of success.

"Our boat was altogether too small and overcrowded; however, we went round outside and tried to dredge in the heavy swell that unceasingly rolls in from the ocean. A few hauls were made in fifteen fathoms of water, but the two men we had hired would not scull hard enough to pull the dredge along. It was hard work, and I had to overhaul alone the material brought up, as Toyama and his friend were seasick and lay helpless in the bottom of the boat."

But the day was saved when Morse made a final attempt on the way back to their station:

'Returning to our cove I ventured a try there, hoping to get the objects that first induced me to come to Japan: namely Brachiopods. I had intended digging in this cove at low tide in search of the worm. Conceive my astonishment and delight when the first haul brought up twenty small Lingula, *apparently the same species that I had studied on the coast of North Carolina. A number of hauls brought me up two hundred specimens which I have alive for study."*

Each successive day brought new finds. *"Yesterday was a successful day at the laboratory. A fisherman brought in a bucketful of living cones and other large shells, bright-colored starfishes, and some rare mollusks I had never seen alive before, for which he asked twenty cents. We started up the river that empties into the sea near the neck of land where we cross, hoping to find some fresh-water shells, and succeeded in finding a few living* Corbicula. *Near the mouth we found a number of fine* Psammobia, *a large bivalve, and farther up we captured some lively and pugnacious crabs."* All the materials were sorted out and studied at the laboratory; and Morse had a table set up in the corner of his room at the inn, where he could continue his investigations, and write up the results (No. 19).

No. 19

During the six weeks Morse and his assistants worked at Enoshima, they systematically collected a great variety of marine fauna from the ocean bottom, and they worked diligently to separate them out according to taxonomic classifications. The little room became more cramped by the day as the jars and kegs were filled with specimens. Morse labored at his microscope, but it was impossible not to be distracted by the ever-changing aspects of Mt. Fuji, which loomed up majestically in his window, and the lively and unfamiliar human activities that took place just outside.

The absorbing array of creatures from the sea-floor kept everyone busy, but the focus of Morse's own interests seems to have begun to shift in a subtle but perceptible way. No longer was his preoccupation entirely with the biological intricacies of shellfish, for the fascinating culture surrounding him drew ever more on his attentions, and sparked his desire to study and comprehend it.

The summer days passed quickly, but he found time for local sightseeing. He often visited the ancient red-lacquered Shinto shrines at the peak of the island that made it one of the most venerated pilgrimage sites in the region. There, he was shown many of the shrine treasures as well as its curiosities. He admired the former, but was not above questioning the traditional identifications of several of the latter, such as a hard substance that was claimed to be petrified wood, but which Morse, ever the pragmatic scientist, promptly recognized as a fragment from the lower jaw of a sperm whale. Towering above one of the shrines today is a large Cedar-of-Labanon that honors the tutelary deity, planted by Morse in the summer of 1877. One day Morse and several of his group sailed around to the opposite side of the island on an expedition to see the cave-shrine where the deity Benzaiten is worshipped. Morse's description captures the distinctive atmosphere: *"The cave seemed to be an immense fissure in the rock, which had been rounded out by the waves in former times when the land must have been submerged; now the waves reach only to the entrance. The rocks were light in color, so the dark entrance of the cave stood out strongly by contrast. About one hundred and fifty feet within was a Shinto shrine covered with gilt, which reflected the few light rays which came from the entrance, making a striking effect in the dark cave. The shrine was nearly ten feet high and as wide, carved in the most elaborate way. It was an odd place to find a shrine, this dark, damp cave, and yet in Japan, wherever you find a striking feature in the landscape, such as this place, the top of a mountain, the verge of a precipice or deep ravine, there you will find these religious and devoted people erect their churches or shrines."*

The specimens that Morse and his associates had meticulously classified and preserved, either by careful drying or in alcohol, were to serve as the nucleus of a

zoological collection for the University—the beginning of the first zoological museum in Japan. All the specimens were packed so that they could be transported to Tokyo, a distance of over thirty miles, and the research station was closed. A caravan was formed of five jinrikisha, and each rider was assigned a basket of particularly fragile specimens to be held in his lap. *"We kept rather close together, and it was interesting to see the impression our appearance made upon the natives. They would glance at the first one curiously, look at the second one, stare in amazement at the third, and laugh in astonishment at the sight of all of us holding such curious-looking objects in our laps. We concluded to stop in Yokohama for the night. We came to Tokyo the next morning with our precious corals and other objects in perfect condition."*

Morse attended his first faculty meeting on the morning of September 11; and in the afternoon a reception was given for the foreign professors. *"It was an interesting gathering. The Medical College is officered by Germans: the School of Language has French, German, English, and Chinese teachers; and our branch of the University has four or five Englishmen, eight or nine Americans, a Frenchman, two Germans, and a number of Japanese assistant professors. The Japanese with few exceptions were in our dress, but the Chinese teachers were in their own costume, for they never change."* Morse gave his first lecture on the following day. He felt a spontaneous affection for his students from the start, and he was obviously well-liked in return, for many of those he instructed kept in contact with him over the years and also imbued their sons with a sense of admiration for Morse and his enthusiastic teaching. *"The class is divided into two divisions of forty-five pupils each, so each lecture has to be given twice, which is somewhat exhausting. I am in love with my students already; it is a delight to teach such good boys, all greedy to learn. The attention, their courtesy, and their respectful demeanor is an inspiration. Most of them are rationalists and a few may be Buddhists so with these conditions I anticipate a delightful experience in presenting Darwinism pure and simple. Especially notable is their alert recognition of my drawings of various animals on the blackboard."*

Morse's lecture course was the first devoted to zoology ever given in Japan. He lectured diligently, alternating his teaching duties with his investigations of the contents of the Omori "kitchen middens," his research on brachiopods, and his work in organizing the museum of natural history. He comments in his notes: "Last Monday I gave a strong lecture on Evolution, and now the class expresses an impatient desire to have a course on the subject, but I shall not have time to prepare it until I get back from America in the spring." The Darwinian doctrine of evolution was still new, and not yet widely accepted in the West, where it ran counter to Christian dogma. In Japan, however, there was no predisposed bias against the concept, which did not conflict in any essential way with traditional ideas of ancestor veneration. Morse was the first advocate of Evolution to teach in Japan, and despite vigorous opposition from local missionary groups, he met with unqualified success, and the doctrines of Darwin and Huxley were soon accepted as fact among Japanese scientists.

On October 6, Morse gave what seems to have been the first public lecture on Darwinism in Japan. He remarks: "The audience seemed to be keenly interested, and it was delightful to explain the Darwinian theory without running up against theological prejudice as I often did at home." A week later he spoke before the Asiatic Society of Japan, in Yokohama, where he discussed "Traces of Early Man in Japan," using examples of pottery from Omori to demonstrate his thesis.

Just before Morse's return to the United States, he was given a formal dinner by the Director of the University, on the evening of October 29. It was a very grand affair, for the Vice-Minister of Education, Tanaka Fujimaro, and a number of important Japanese professors were present. Everything was exquisitely catered, and we know from the menu specially printed in French for the affair that the cuisine was the finest that could be had. Dr. Murray, the only other foreigner present, cautioned Morse that he must be on his best behavior because of the formal circumstances of the occasion. After the sumptuous dinner, everyone gathered at a separate table for cigars, coffee, and cordials. The atmosphere of dignified reserve continued, however, and finally the irrepressible Morse, hoping to inject a bit of levity into the proceedings, asked if anyone had noticed the interesting similarities between Japanese games and those of his own country. This leading question seems to have evoked an enthusiastic response. *"To make a long story short, in less than half an hour I had all the guests trying to see how far they could chalk on the floor and various other games. Professor Kikuchi suggested a three-legged*

race, and Toyama and Yatabe had, one his right leg and the other his left leg, bound together by handkerchiefs. Kikuchi and I were bound up in the same manner, and away we four went across the floor, encouraged by the uproarious laughter of the others. These revels we kept up until midnight." Later, Murray commented that he had never observed such behavior in his several years in Japan, and that he was amazed at how Morse had brought it all about. Morse quoted an Old Chinese saying that in the four quarters of the world all men are brothers, and observed "Human nature is about the same everywhere."

Morse's steamer for the United States left Yokohama on Nov. 5, and among the exotic miscellany he proudly took on board were living specimens of *Lingula,* a type of brachiopod, which he carefully nurtured and got back to his own country alive. He had also been given permission to take home three small collections of duplicate specimens from the Omori shell mounds, which he presented to the Smithsonian, Yale, and Salem museums.

After an absence of half a year, Morse was back in Japan, this time with his wife and two children, everyone comfortably settled in their spacious residence at No. 5 Kaga Yashiki. A photograph taken on June 10, 1878, shows the family and their household staff (No. 20), and a note from Morse's daughter Edith to a friend in Salem, Jennie Brooks, reveals the typical difficulties in achieving a successful group shot with the slow film of the period: "*. . . Mama was sitting in a big arm chair on the piazza, Papa was standing on the piazza, the cook, boy and amah standing beside the house, and John and I were in the Jinricksha. The first time it was not good for the boy moved his head so that it looked as if he had not any, and I laughed so that my face was all askew. What made me laugh was that the boy smiled and moved his head and the amah made some kind of noise so that I could not keep still, and so I laughed and that made Papa and the cook laugh. Mama laughed until the tears ran down her cheeks. Perhaps you can imagine how it looked, but the next time it was all right. The boy put some*

No. 20

paper in his ears so as not to hear us if we laughed."

Morse, as one might expect, had arranged the layout of his study for maximum efficiency (No. 21). *". . . my room, which is a long, high-studded room, a drawing-room, in fact, thirty feet long, back of which is the dining-room, separated by folding doors and which I now use as a bedroom. The table, or desk, with student lamp, I use for my journal and correspondence; the next table I use as a catch-all, though somehow or other the other tables catch a good many things that do not belong to them. The farther table, the round one, I reserve for my shell-heap work and a few memoirs relating to the subject; the desk in the corner contains all my scientific notes and special work I am doing on the Brachiopods; so I move my lamp from one table to another as necessity requires. In this room I write night after night undisturbed by a single caller; outside, absolute peace and quiet reigns; indeed, the only sound that reaches one's ears is the distant sound of some high notes of someone slightly exhilarated by sake; . . ."*

No. 21

Because of his special position at the University, Morse enjoyed a variety of privileges not extended to the usual foreigner. *"There is a small portion of the city set apart for foreigners, and no foreigner can have a residence outside this limit unless he is a Government officer; as the Imperial University is sustained by the Government the instructors are regarded as Government officers and are privileged to reside in any part of the city. In the Kaga Yashiki, four miles or more from the foreign concession, we are in the midst of Japanese life pure and simple."* Living in the Kaga Yashiki grounds gave Morse a strong sense of the dynamic changes that had taken place in Japan within the space of a few years: *"Within a rod of my house in the yashiki are a well and stone monument, the latter enclosed by a bamboo fence, tumbling to pieces. In various parts of the yashiki are deep wells, fenced in, high mounds that were formerly beautiful features in some garden, and other evidences of a large settlement when the Prince of Kaga and thousands of his retainers made their annual visit to the Shogun at Yedo [Edo]. It is difficult to realize that less than ten years ago the Shogun was in power and that this yashiki and other yashikis in the city were filled with houses in which the retainers, artisans, and servants were quartered, and that at six o'clock everybody had to be within the gates. No foreigner was allowed to live in Yedo, nor could he ever visit it unless he was a high official of some foreign Government, and here we are roaming round the city unguarded and unmolested."* But political unrest was still widespread, and on May 15, Morse was startled to hear of the assassination of Count Okubo, a high government official, whose son was a member of Morse's class.

It appears that Morse was asked by the University to assist them in finding two more men for their staff of instructors when he returned to the United States in November of 1877. They were interested in adding a specialist in Physics, and a second man who could teach Political Science. Morse was requested to recommend appropriate candidates. He was, of course, familiar with an extensive number of men in the sciences, and while he was traveling about on his lecture tour, he had the chance to interview Thomas C. Mendenhall, (1841-1924) a respected physicist who was then teaching at Ohio Agricultural and Mechanical College, who agreed to take the position. When it came to choosing someone to teach Political Science, however, Morse felt less sure of himself.

The man eventually hired for the second position was Ernest F. Fenollosa, (1853-1908), a recent graduate of Harvard (1874). Fenollosa was a native of Salem, and Morse may well have met him earlier; but Morse's decision to propose Fenollosa for the job seems to have been made as a result of the recommendation of Prof. Charles Eliot Norton of Harvard, a pioneer in the scholarly study of the Fine Arts. The offer was a providential one for Fenollosa, who, unlike Mendenhall (who was already an established man in his discipline), had not yet decided on what course in life he planned to pursue. He had been a precocious and promising student, who, in addition to specializing in Philosophy, (where he was attracted to the ideas of Spencer and

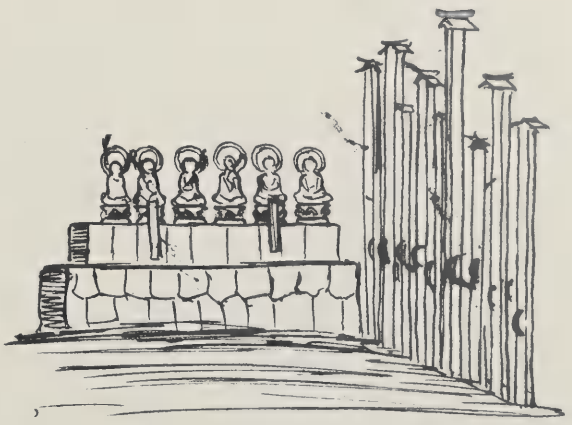
Hegel, particularly the latter's views on aesthetics), had also attended the Unitarian Divinity School and, in the last year before he went to Japan, studied painting and drawing at the Massachusetts Normal Art School and the art school run by the Museum of Fine Arts, Boston. The contractual offer to go to Tokyo came when he was still only twenty-five years old, and he had not been there long before he found the subject that was to absorb his interest for the remainder of his life—the arts of Japan. The financial stability of a remunerative position at Tokyo Imperial University made it possible for Fenollosa to marry, and he and his bride arrived in Yokohama on Aug. 9, 1878. They were soon established close to the Morses, at No. One Kaga Yashiki; and Mendenhall took up residence at No. Two soon after.

Most of the carefully selected students, ninety in number, who had begun with Morse in the Fall of 1877 continued on under him. His relationship with many of his students and associates was warm and enduring, and a number of them kept in contact with him regularly over the decades, after he returned to Salem. The majority of them became prominent figures in scientific circles in Japan, respected scholars and educators, and it is fair to say that Japan's subsequent progress in the fields of medicine, archaeology, and various branches of the biological sciences was, in large part, the result of that happy conjunction of eager, industrious students and their dedicated teacher.

Morse's affection and concern for his students is illuminated by a tragic event—the death of Matsuura Saiyohiko on July 5, 1878. Matsuura had assisted Morse at Enoshima in the summer of 1877, and when he fell ill with beriberi, Morse went to the hospital frequently to see him, and was present at his funeral. *"About a hundred students gathered, and we waited some time for the coffin to appear. This was a long plain box covered with white cloth and borne on the shoulders of four men. . . . There was no organized procession. We followed the body in an irregular manner, but with sober and orderly demeanor. . . . A walk of nearly a mile and a half brought us to the cemetery, a very beautiful place with large trees, and flowers, and much natural scenery. The people we passed looked in curious wonder at seeing a foreigner in the procession. . . . Soon a Buddhist priest with clean-shaven head came out bearing sprigs of leaves which he leaned against the side of the coffin, one near each end; he then put on his rich brocade robes, lighted the candle, knelt down beside the coffin, and began mumbling a prayer, occasionally tapping a little bell which he had with him. . . . The grave was very deep, seven or eight feet, at least. After the coffin had been lowered into it many of the students pushed in a little earth with their umbrellas; others took up a handful of earth and tossed it in. It was a sad sight, these sober-faced young men gathering around the grave and then quietly dispersing."* Morse contributed to the purchase of a gravestone, and was requested by Matsuura's classmates to compose an epitaph, which was engraved on it: "A faithful student, a sincere friend; a lover of nature, holding the belief that in moral as well as physical questions 'the ultimate court of appeal is observation and experiment and not authority.' Such was Matsuura. Edward S. Morse."

Accompanied by a party of six Japanese, Morse set out on an official surveying expedition to Hokkaido, Japan's northernmost island, on July 13. After a steamer journey of three and a half days, they arrived at the port of Hakodate, where Morse set up a temporary marine research laboratory. He called on the Governor, who obligingly put a steam launch and crew at his disposal. *"The launch was so neat and clean that I explained that the operation of dredging was very dirty, with its mud and water, and got a boat towed behind from which we dredged. . . . On our first excursion it rained very hard and I got wet to the skin. The material brought up was very different from that of the more southern region; the shells were more like northern forms, yet with certain southern forms mixed; beautiful Brachiopods, one a* Terebratulina, *light red in color and heavily ribbed; and other forms which I shall keep alive for study."*

Morse, the ever-observant student of native custom, made sketches of anything that struck his interest (No. 22). *"These were*



No. 22

evidently Buddhas, and at right angles to them was a row of square wooden posts each capped with a little roof. These posts had inscriptions upon them. In every post was an iron wheel that could be revolved by hand; tied to the wheels were a number of iron rings which jangled as you gave the wheel a twirl. These are called 'praying-posts' and the jangle of the iron rings calls the attention of the gods to the supplicants. This was told me by one of my men, and I recalled the praying-wheels of Tibetan Buddhists. In their case every turn is a prayer and by vigorous turning of the wheel you can pour in a volume of supplications."

On July 25, the party set off for Otaru, on the west coast of Yezo (or "Ezo," the old name for Hokkaido), landing the next morning. After establishing themselves in the only inn in the town and prevailing on the head official for the use of a steam launch for dredging, Morse led an archaeological expedition to excavate some local shell-mounds, which produced a number of pottery fragments and a few stone implements. They also encountered a prestigious local grandam who impressed them with her strength. *"One little old woman with inflamed eyes, and looking seventy at least, though she was probably not over fifty, came along the road with the carrying-stick across her shoulders, and from either end was suspended a huge basket of large scallop which she was peddling. I called her in and bought a number of her shells and endeavored to lift the load as she did, but found it impossible to start more than one basket from the ground. My Japanese companions, in turn, made the attempt, but the weight was altogether too much for them. The old woman seemed greatly amused, and when we had given up trying to raise even one basket, she, although it may seem incredible, quietly lifted this load, and with a polite 'sayonara' went gayly swinging out of the yard and up the street at an absolute trot."*

They were quite successful in finding a large variety of shellfish for study, and Morse gingerly sampled the local seafood. *". . . eggs of sea urchin, which were served raw and were fairly good-tasting; and holothurian, or sea cucumber, tough as rubber, doubtless nutritious, but by no means agreeable. It was eaten with Japanese sauce,* shoyu, *which renders everything more or less palatable. I had for supper marine worms,—actual worms, resembling our angleworms, only slightly larger, and judging from the tufts about one end they probably belonged to the genus* Sabella. *They were eaten raw and the taste was precisely as seaweed smells at low tide. I ate a large plateful and slept soundly. I have also had served and have eaten a gigantic ascidian belonging to the genus* Cynthia. *I often eat* Haliotis, *the abalone of California. . . . I am also eating things that I do not know and cannot even guess what they are. On the whole, I am keeping body and its animating principle together, but long for a cup of coffee and a slice of bread-and-butter. I am the only outside barbarian in town."*

The party left Otaru on the 29th of July, and headed inland, for Sapporo, on horseback. Morse was understandably leery of horses, for he had never ridden before, and the non-descript horses provided for the journey justified his fears. The beasts were skittish and unpredictable, and he was thrown off on one occasion, landing on his head. On another: *"Suddenly, for no apparent reason, three of our horses ran away, and I was on one of them. . . . Everything portable was shed; first hats; then strings and straps broke and tin botanical boxes, bags, and packages came off, one after the other, and the road was strewn for a long distance with these objects . . . I managed to hold onto everything; my pith sun hat, my colored eyeglasses, and a cigar-holder with lighted cigar were undisturbed."*

While he was in Hokkaido, Morse had several opportunities to observe the customs and behavior of the Ainu, a mysterious non-Mongoloid people, at firsthand. The Ainu, who in much earlier times had inhabited all of the Japanese Archipelago, had been gradually forced north over the centuries, and Morse arrived in Hokkaido at a time when it was still possible to study their rapidly declining culture when it was still more or less intact and representative. He appears to have been one of the first Westerners to take a serious ethnographical interest in the Ainu, and the fine collection of clothing and artifacts reproduced in Section 7 of this catalogue testifies to his foresight.

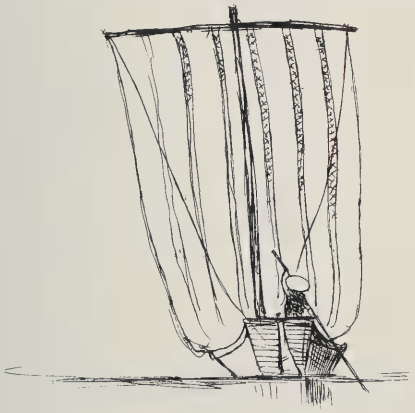
The party continued east, passing through Sapporo, Chitose, and finally reached the east coast of Hokkaido at Tomokomae. They proceeded along the coast, passing through Shiraoi, where Morse did a number

of sketches of the Ainu, their artifacts, and architecture (such as their distinctive storehouses, (No. 23)), and on to Muroran. Some

No. 23

days later they were back in Hakodate, where they continued their dredging operations. The party separated on Aug. 17th for the return to Tokyo. Morse, determined to see as much of the country as he could, decided to go overland, down the interior of Honshu; while two of his associates went back by way of Niigata, in order to dredge along the Japan Sea coast; and the others returned directly to Yokohama by steamer with the collections.

It was five hundred miles to Tokyo, and Morse hoped to make it, mostly by jinrikisha, in ten days. At Morioka, Morse and his two companions boarded a river boat (No. 24) for a leisurely trip downstream as far as Sendai.



No. 24

The hardest part of the journey was between Sendai and Utsunomiya, all by jinrikisha over spinejarring country roads. At Utsunomiya, they were able to make a connection with the stage, and were soon back in Tokyo.

It was time for Morse to take up his educational duties again. He was busy with the preparations for his University classes, as well as his job at the new museum, cataloging specimens and installing exhibits. A year earlier, in order to facilitate the exchange of knowledge on biological matters, Morse had encouraged his students to form their own scholarly society, and this group, the Biological Society of Tokyo University, now met regularly for reports and discussion. Its proceedings were patterned after those of the groups in Portland and Boston that had been so influential in Morse's own career.

Morse's heavy schedule and self-imposed work load seem to have caught up with him in the late autumn of 1878, when his nerves and digestion started to bother him. Overwork, rather than any physical difficulty seems to have caused his problems; and shorter hours and more exercise were recommended by the doctor, who suggested that he take a five-mile walk daily. Although Morse resented the time lost from his desk at first, he seems to have gradually come to enjoy his daily walks, for they gave him a fine opportunity to continue his study of Japanese life firsthand. One day, while scrutinizing the goods displayed in front of a neighborhood shop, he came across a saucer that took his fancy: it was made in imitation of a pecten shell. On subsequent walks he found more of these humble pieces modeled after shells, and had soon assembled a small collection of them. Morse's great fame in later years as a collector and specialist in Japanese ceramics seems to have started with this modest group of inexpensive, daily-use saucers.

Soon he was collecting other kinds of pottery. *"It is curious how slowly and unconsciously one grows to the appreciation of the quaint and odd in Japanese handwork. Of course the artist instantly sees the beauty of it, and no one could fail to admire the beautiful work of the sword-guards and other objects. But when one sees their pottery, for example, irregular in shape, purposely dented in, with sketchy designs, so unlike any pottery an Occidental is accustomed to, he wonders what there is to admire in the work. Let him begin to collect, however, and if he is a natural-born collector he will become wild over the tea-jars and other forms of pottery."* Enthused by the prospect of learning more about pottery, Morse soon found himself a teacher, Ninagawa Noritane. Ninagawa, (No. 25) who was a respected antiquarian, came to visit Morse every Sunday afternoon. They would retire to the library, and carefully scrutinize the week's acquisitions. Ninagawa worked patiently with his precocious student, teaching him the arcane details of Japanese pottery: the varying textures of the clays used in different provinces, the glazes and firing techniques that indicated provenance or maker, and the distinctive ves-

sel shapes, foot-conformations, and identifying marks used by individual kilns or artists.

No. 25

Morse learned quickly, and often his final test in this discriminating process of classification would be to identify an object solely by its tactile qualities, without using his eyes. Soon, Morse was a keen participant in connoisseurly meetings of specialists, where various pieces would be displayed by the host, and everyone competed for the highest number of correct attributions. The carefully-considered manner in which each piece was examined and classified had a strong appeal for Morse, for the method of determining provenance, date, and the identity of the potter was essentially an inductive, systematic process that was analogous to Morse's own pragmatic approach to research. Morse visited Ninagawa at his home, and he was eventually given access to a series of illustrated manuscript volumes on pottery written by Ninagawa, which Morse copied and had translated for his own use.

Late in the spring of 1879, on May 9, Morse set off with another expedition sponsored by the University. This time the direction was southwest, and the plan was to dredge for semitropical fauna in the Gulf of Kagoshima and around Kobe and Nagasaki. The first leg of the trip took them to Kobe, where they stopped long enough for Morse to tramp about a bit, and observe that the natives were somewhat different in their habits and appearance from the people around Tokyo. Morse "... managed to run behind a jinrikisha and get the style of hair of a grown woman; the bows are much smaller than in Tokyo and are flattened against the head (No. 26)." That night they

No. 26

boarded a paddle-wheel steamer that took them through the Inland Sea, the Straits of Shimonoseki, and to Nagasaki, where they spent several days, dredging with good results. Next they sailed down the west coast of Kyushu, past Higo Province, to Satsuma. At Takahashi (in Higo), they debarked to spend the night ashore. The next day everyone looked for specimens. "... *as the tide was up collected from the piles of shells near the fishermen's huts, getting many fine specimens in perfect condition. Imagine my amazement upon finding on one of the refuse piles a large number of the shells of the large green* Lingula anatina! *The animal had been used for food, and I ran around like a maniac to find somebody who could tell me where they were dug. I soon learned that they were dug at low tide and were a common article of food. Here was the creature that alone had brought me first to Japan, and for the moment I felt like abandoning everything to devote my whole attention to this ancient worm.*"

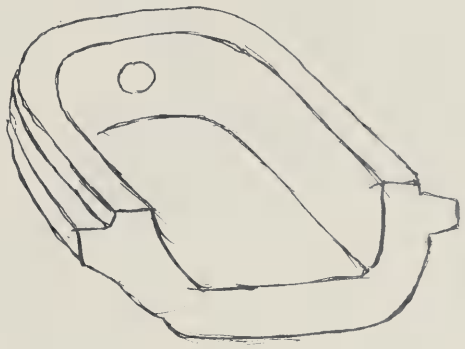
The ship arrived in Kagoshima Bay late at night. "... *but a far more interesting sight than the entrance to the Bay was the phosphorescence of the sea. It was startling in its brilliancy, and what was very remarkable, the dim and ghostly outline of every fish, big and little, was clearly defined by the phosphorescent material they stirred up. I hung over the bow to see better this wonderful exhibition. A shark, like a ghost, went beneath the vessel, a skeleton fish with a spectre-lit path, every turn and dodge dimly outlined. Some fish darted away from the vessel's side like a rocket, leaving a straight shaft of light....*" Morse, following protocol, went to pay his respects to the Prefectural Governor, who obligingly put a boat and crew at the party's disposal. Two days of laborious dredging and scavenging through refuse heaps produced a large trove of new

shellfish, although Morse promptly gave up the latter activity when he learned that the region was suffering from an epidemic of Asiatic cholera. He was entertained on the second night by the Governor, and the party was so successful that time passed quickly: *At two o'clock in the morning we had to say good-bye and all expressed the pleasure they had enjoyed. We hurried to the tea-house in the dark, packed up the results of our day's collecting, and started for the steamer just as day was dawning. We heard the anchor being weighed and clambered aboard with the steamer just starting. I had been on my feet for twenty-four hours, had dredged, had walked eight miles in a broiling sun with almost nothing to eat, and now found myself so tired out that I dropped on the hard deck and fell sound asleep."*

The steamer took the party back north, to Higo, where Morse went directly to call on the Governor of the region, who welcomed him at his residence in Kumamoto castle. *"The Governor showed us about the castle and told us about the siege two years before [during the 'Satsuma Rebellion'], when for six weeks the castle was besieged, many of the buildings burned down, many citizens and soldiers killed, and the city of Kumamoto laid in ashes. The Governor was in his castle and the rebels made special efforts to destroy the building in which he was supposed to be. The buildings were battered and in many places were the marks of bullet holes."*

The party set off early the next morning for Onomura, where they made a cursory investigation of the extensive neolithic shell mounds, which Morse had learned of from his associate, the geologist Prof. Lyman. *"The road passes through them and they are at least five miles from the sea. The deposits may prove to be equal in depth to the shell heaps of Florida, at least thirty feet. The solid mass of shells consisted of* Arca granosa, *though many other species of shells were found. . . . We got many bones, among them fragments of human bones as in the Omori deposit showing evidences of cannibalism."* They also discovered "some extraordinary forms of pottery," and close by, a stone coffin (No. 27). "It was a huge stone sarcophagus. The end of the cover had been broken and was face down, and it was hard to get the villagers to assist us in turning it over on account of superstitions connected with burial . . . the inside was cut in panels. It is believed to date back a thousand or twelve hundred years."

From Kumamoto, Morse went to Nagasaki, where he remained for several days, studying his natural specimens, and then returned back to Kobe and Osaka. One day he made an excursion to investigate some ancient burial tumuli, located about twelve miles outside Osaka. These turned out to be massive stone dolmen structures with earth piled high over them, constructed twelve hundred years earlier, and Morse published an instructive article on them early in the next year in *The Popular Science Monthly* (March, 1880).



No. 27

Morse missed no opportunity to see as much of the country as possible. He made a visit to the ancient city of Nara, which was propitious in its timing. *"Nara is the ancient capital of Japan, and a spirit of hallowed antiquity broods over the place. . . . A marvelous old wooden storehouse perched on high posts [the 'Shosoin'] was built a thousand years ago to preserve the objects belonging to an emperor of that time. It is certainly one of the marvels of Japan. In this building are preserved the household objects and utensils actually owned by the emperor, from the simplest hairpin to the finest musical instrument, some inlaid with gold; objects of the kitchen, decorative pieces, pictures, books, pottery, furniture, clothing, weapons, walking-canes, ink-stones and sticks of ink, fans: indeed, the entire contents of the palace. . . . Once a year Government officials open the single entrance and examine all the objects to see that none have been injured by dampness or other influences. I was fortunate in being in Nara during this annual examination, and knowing one of the officials was permitted to enter the building with them and allowed to make sketches of the old pottery. It was interesting to watch the reverent behavior of the grave officials. All wore white cloth gloves and all spoke in a low tone."* Although Morse may not have been the first Westerner to gain access to the famous Shosoin building and its extraordinary collections, he was certainly one of the earliest.

A number of days were devoted to seeing the sights in Kyoto, center of traditional Japanese culture for over a thousand years. Morse, because of his passion for ceramics, was particularly keen to visit all the pottery manufacturing districts and workshops he could. He went to the Kiyomizu, Gojosaka and Awata areas, carefully observing the potters in all the stages of their work. Everything fascinated him except for the factories that were mass-producing "Yokohama-muki" ("Yokohama Taste") pieces for the export trade. He noted indignantly: "*. . . many outsiders are employed, boys ten years old splashing on the decorations of flowers, butterflies, and the like, motives derived from their mythology, but in sickening confusion, so contrary to the exquisite reserve of the Japanese in the decoration of objects for their own use. Previous to the demands of the foreigner, the members of the immediate family were leisurely engaged in producing pottery refined in form and decoration. Now the whole compound is given up to a feverish activity of work, with Tom, Dick and Harry and their children slapping it out by the gross. . . . 'Put on all the red and gold you can' is the order . . . and the haste and roughness of the work, which is exported to America and Europe, confirms the Japanese that they are dealing with people whose tastes are barbaric.*" But there were a number of renowned workshops who continued to work in their traditional styles. "Most of my time in Kyoto was spent at the various potteries and from the more famous ones, Dohachi, Kichizaemon, Yeiraku, Rokubei, and Kitei, I made a large addition to my pottery studies, getting from them a history of the families of the past generations, impressions of their pottery signatures, etc."

Despite his fascination with Japan, Morse had begun to think about getting back to Salem. His friend John Gould, impressed by the high prestige and financial advantages of Morse's post at the University, had advised him to stay on in Japan, but Morse, in a letter of May 2, 1879, responded: "Your advice is good, but think of the ten years I have given to the Brachiopods. That work cannot wait any longer. . . ." He also had publishing plans. "*I want to get out my Japanese book while the vim is on me. I want to get out my Second Book of Zoology while I am young. I want to publish a popular book on Evolution while it is still remembered, for if I wait much longer it would be like working on a book trying to prove that the Earth revolves. . . .*" The "Japanese book" was, of course, *Japan Day by Day*, a project he did not bring to fruition until thirty-eight years later. So he declined the entreaties of the University authorities, and did not renew his contract. He gave a final series of four lectures at the Noble's School, lectured before students of Fukuzawa Yukichi's school, and gave the final examination for his zoology class. These obligations completed, he said goodbye to all his students and associates, painstakingly packed up his cherished collections of pottery and brachiopods, and the Morse family was off to board the steamer for San Francisco. Also on board was former president Ulysses S. Grant, who Morse had met at a reception in Tokyo. The two men became good friends during the long voyage, and Grant is said to have spent many of his leisure hours instructing John Morse, a precocious nine years of age, in the intricacies of chess.

By October, the Morse family was back in Salem, comfortably settled at their home on Linden Street, and Morse was again eagerly accepting invitations for public lectures around the country. His distinctive delivery and sketching ability are portrayed in a notice from the Chicago *Times*: "*Professor Morse is a natural humorist without a taint of vulgarity. He possesses a fine vein of the ludicrous and while he was busy as a beaver drawing skeletons, he would continually let slip something that kept the audience in the best humor. Whether he desires to represent a protoplasm or a fashionably dressed lady, he does both with about five chalk marks apparently promiscuously dashed upon the board, but there is no mistaking what it is intended to represent.*" The Lowell Institute invited him to give a second course of lectures, and he spoke this time on Japan. A notice in a local newspaper testified to his success: "no other of the several winter courses has been so thronged and no other has given such delight. The audiences have surged up to the very platform steps . . . following this course with the help of the blackboard has been like making a tour of the insular empire."

In 1880, Morse was honored by being offered the directorship of the Peabody Academy of Science (now the Peabody Museum of Salem), a post he filled for thirty-six years until his retirement in 1916, when he became Director Emeritus. During the next two years he worked with his habitual industry and vigor, fulfilling his institutional responsibilities, organizing new installations, speaking frequently on subjects such as "the mud wasp, barnswallows and Japanese people"; "Japanese caves"; "Japanese

pulmonifera"; "on method of using sun's rays for heating." He was equally industrious in his publishing, writing on diverse topics such as "Notes on Hokusai, the founder of the modern Japanese school of drawing"; "the gradual dispersion of certain Mollusks in New England"; "Ancient Japanese Bronze Bells"; and "Prehistoric Man in America." During these years Morse obviously endeavored to work with equal energy in both of his general fields of interest—Natural History and Japan. It was the latter, however, that exercised the strongest hold on his mind and emotions, and it seems likely that he was suffering from an acute case of nostalgia for Japan.

Toward the end of the summer of 1881, Morse was invited to be a guest at the summer retreat of Dr. William Sturgis Bigelow on Tuckernuck Island, off Nantucket. Bigelow was the scion of one of Boston's Brahmin families, who, following family precedent (his father and grandfather were both eminent members of the Harvard Medical School Faculty) dutifully took up medicine, receiving his M.D. degree from Harvard in 1874. Disinclined to practice, however, he went off to Europe, where he spent the next five years continuing his studies and seeing the sights on the continent. The end of this sojourn was spent in Paris, where he worked under Pasteur. Paris was the center for the craze for Japanese art that was spreading in Europe at this time, and Bigelow, attracted by the exotic and novel art forms of Japan, purchased a large number of pieces. The majority (if not all) were acquired from Samuel Bing, the enterprising dealer whose activities were influential in stimulating the Art Nouveau movement, where Japanese decorative concepts were a fundamental source of inspiration. After his return from Europe in 1879, Bigelow exhibited his bronzes and lacquers at the Museum of Fine Arts, Boston, stimulating an interest in Japanese objects in his native city. It is likely that Bigelow attended Morse's Lowell lectures in 1881, and listened with rapt attention to the firsthand experiences of the older man who had actually traveled about and lived in remote and romantic Japan.

With their common interest in things Japanese, the two men seem to have hit it off well from the start. The prospect of taking up routine medical practice seems to have held little attraction for Bigelow, and his conversations with the enthusiastic Morse soon gave rise to an exciting alternative—a journey together to Japan. Morse was, predictably enough, itching to get back to Japan, for he had a variety of intriguing subjects that needed further research, and he was also more than eager to add to his pottery collection. Moreover, he was able to convince the Trustees of the Peabody Museum that the time was right for them to enlarge the institution's holdings of ethnological materials from the Orient, and they wisely provided the finances for this farsighted project.

They left Boston during the first week of May, 1882, and arrived in Yokohama on June 5th. The next day they went to Tokyo, where Morse was warmly greeted by all his former associates and friends, including Ernest Fenollosa. He was overjoyed to find the Zoological Museum was now completed. *"The last work I did before I went home was to draw the plans of a two-storied building. My plans had been carried out to the letter. Many new cases had been built similar to the first ones I made, and I must confess to a feeling of gratification when I entered the main hall to see a full-sized portrait of myself, neatly framed, hanging on one side of the main entrance."* The University authorities provided Morse and Bigelow with a small house which was conveniently located but not ideal in its surroundings: "Back of the house is the insane hospital, and we are lulled to sleep by the songs of the maniacs, enlivened now and then by the shrieks of some cases of acute mania."

Bigelow was soon collecting swords and sword-guards, and Morse was prospecting for pottery. *"A quest for pottery showed unexpected conditions, for where formerly the bric-a-bric shops were filled with interesting pieces, now they are scarce; tea-jars, particularly, as the cult of the tea ceremony has been revived, and tea-bowls, tea-jars, and other utensils have come into use again. Furthermore, in England and France, the collecting of Japanese pottery has become a craze, and a few in the United States have begun to see the charm of Japanese pottery and even art museums are beginning to appreciate these objects."* The days passed quickly. Morse guided Bigelow around, gave several public lectures, and continued his study of Japanese customs and behavior, industriously sketching anything that caught his eye.

On July 26, Morse, Bigelow and Fenollosa started out on a sightseeing and collecting expedition through the southern provinces. Traveling by stage, jinrikisha, palanquin, and occasionally by foot, they

moved at a leisurely pace, stopping for a day or two at Hakone, Shizuoka, Hamamatsu and Toyohashi, rummaging through the bric-a-brac stores in each town for antiques. Four days were spent in Nagoya: *"Dr. Bigelow after lacquer and sword-guards, Fenollosa after pictures, and I ransacked every place for pottery. At the hotel where we stopped we had large tables and chairs, which were of great convenience. The dealers were coming to our rooms all the time, sometimes eight or ten at a time, spreading out their stock in trade on the floor. Up to the last hour of our stay we were buying things, and I made some fine additions to the pottery collection."*

Two days later, they were in Kyoto. *"The city of Kyoto is certainly the artistic centre of artistic Japan. Everywhere you see evidences of it in the shops, houses, fences, roof-tops, window openings, sliding screens and the devices for sliding them, trellises, balcony rails. The very advertisements are designed with taste—art and refinement are everywhere. Through the city runs a wide, shallow river. At this time the water is low and the river-bed is exposed in many places, showing large, flattened boulders. These large areas are covered with low tables, a foot high and big enough for one mat, sometimes two. The Japanese hire these tables and a large party will place them side by side. Here families gather in the evening to drink their tea, eat their supper, and enjoy the sunset. From the bridges crossing the river the sight is of wonderful beauty, as every stand is illuminated with a number of bright-colored lanterns, and it is a sea of color as far as the eye can reach, with here and there bonfires kindled on the dry river-bottom."*

On Aug. 8th, Morse went to visit the artist Kono Bairei at his studio, where a class was in session (No. 28). Bairei (1844-95) was

No. 28

one of the most distinguished Kyoto painters of the time, and an important figure in art education during the Meiji period. He had done a painting for the noted Kyoto potter Rokubei showing all the stages in the production of pottery. Morse, because of his passion for pottery, was very keen on having a copy of this painting, and Bairei obligingly produced one for him. It is included in the exhibition, and a section has been used for the cover of the catalogue.

Two days later they left Kyoto and proceeded on to Hiroshima, where Morse added a number of pieces to his horde. On the 15th, Morse and Bigelow boarded a junk for Iwakuni. *"The experience was unique, sailing in a Japanese junk through one of the most picturesque and beautiful waterways in the world. I fairly enjoyed the rapturous comfort the Doctor seemed to take as he sat on the roof of the cabin. Leaning back against a pile of matting with a box of Manila cigars by his side, he held his post the entire day, either dozing or admiring the varied scenery. . . ."* They were welcomed and regally entertained at Iwakuni, where a foreigner had not been seen for seven years. Next, they visited Miyajima, one of the most storied locations in Japan, with its beautiful Shinto shrine, built at the water's edge, and its colossal red *torii* gate, whose base was immersed when the tide rose. "Miyajima is regarded as a very sacred place, and the absolute repose and tranquility are beyond description." "Deer came out of the wild forest and looked at us with gentle eyes; one even came into the enclosure in front of our room and ate a rind of watermelon from my hand." After the voyage back to Kobe, where they rested for several days, they were off to the east, into the Kii peninsula, where they went south as far as Wakanoura. After a scenic two-day jinrikisha journey, they arrived in Nara in the evening, and returned to Kyoto the following day.

Morse energetically made the rounds of famous potter's studios. *"Rokubei seemed pleased to see me again, and immediately brought the cups I had made on a former visit, which he had baked and glazed. On the bottom of the pieces I had marked 'M,' and had drawn a shell inside, and Rokubei had marked in Chinese character on the side, 'Rokubei assisted.' From Rokubei's we went to the Raku pottery Kichizayemon. I found a modest-appearing house. The old potter representing the twelfth generations of the family, who have made for three hundred years a peculiar kind of pottery known as Raku, invited us in, and we introduced ourselves as coming from Rokubei. He kindly answered all my questions, and showed me a complete set of Raku bowls representing the work of all the generations. I made outlines and rubbings*

of the marks." Next they went to visit another Kiyomizu potter, Zoroku, and Morse cleared up a mystery: ". . . and there for the first time I discovered where all the counterfeit Ninsei, Asahi, and other famous potteries had been made. The curious feature about the matter was that the potter and his brother did not seem at all ashamed at the counterfeiting they were doing. They showed me specimens of their father's work, among which were bowls with the Ninsei mark!"

After returning to Tokyo with his pottery trove, Morse continued his ardent study of things Japanese. Accompanied by Bigelow, also a student of health and sanitation, Morse went to see the public crematory at Senju. They admired the efficiency and economy of the operation, and Morse remarked: "We were most favorably impressed with our experience and wondered how long prejudice would stand in the way of this sanitary process in our country." There were so many things to do that Morse could spare no time for housekeeping. "My room is in a continual tangle of confusion—the accumulation of pottery, ethnological objects for the Museum of Salem, notebooks, pictures are all crowded into a little room hardly big enough for my bed and writing table (No. 29)." Morse had

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observed that a knowledge of the tea ceremony was obligatory for any serious student of Japanese culture, and he became an eager practitioner. He was informed by his teacher, Mr. Kohitsu (who came from an eminent line of antiquarians specialized in identifying pottery, calligraphy, and paintings) that he was the first foreigner to take lessons in the art, and the Japanese newspapers soon picked up this interesting fact. Morse was also intrigued by the chanting that is an integral part of the classical Noh drama, and he resolved to take lessons. With a letter of introduction and his associate Takenaka as an interpreter, Morse went to call on Umewaka Minoru (who later instructed Fenollosa). *"He is a famous teacher of* Noh *singing and acting, and has adjoining his house a stage for* no *play. . . . We were presented, and Mr. Umewaka was very hospitable and seemed pleased that a foreigner should wish to take lessons in singing. . . . Mr. Umewaka brought me a singing-book and read slowly the words I was to learn, and I wrote them down as well as I could. . . . He placed in front of me a little music stand and gave me a fan which I held resting on my leg (No. 30). He sang a line and I sang it after him; then he sang another; and so on through the eleven lines of the piece. After trying it twice in that way we sang together. I realized how very rich and sonorous his voice was. Then I observed that, do what I would, my notes sounded flat and monotonous while his were full of inflections and accents, though all on one note. . . . Finally, in desperation, I threw off all reserve and entered into it with all my might, resolved, at any rate, to mimic his sounds. I inflated my abdomen tensely, sang through my nose, put the tremulo stop on where*

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necessary, and attracted a number of attendants who peeked through the screens to look on, in despair, no doubt, at a foreigner desecrating the honored precincts by such infernal howls. Be that as it may, my teacher for the first time bowed approvingly at my efforts, complimented me when I got through my first lesson, and told me, probably in encouragement, that I would in a month's time be able to sing in no *play. . . . It is by taking actual lessons in the tea ceremony and in singing that I may learn many things from the Japanese viewpoint."*

An idea of Morse's pottery acquisitions is revealed in a passage in a letter to John Gould written in November of 1882. *"Am in the throes of packing 2,900 pots. When that is accomplished am off to China, Java, Europe, and home. Am accumulating material that will last me for a lifetime; that is, it will if I can ever leave this angelic country."* During this last sojourn in Japan, Morse had industriously assembled an extensive collection of Japanese arts, crafts and artifacts of every sort for the Peabody Museum. It was collected at a crucial time in Japan's history, a time when that profound process of historical evolution caused by the impact of the outside world on Japan had already gained considerable momentum. Morse realized that the pressures to modernize and industrialize, to adapt to Western material techniques and practices, would soon transform Japanese life in a fundamental manner. In his sagacious way, he recognized the imminent threat to the whole spectrum of traditional art forms, and he saw clearly the urgent necessity to assemble a comprehensive collection before change threatened to indiscriminately destroy much of the superb creative efforts of the past. His foresight is apparent in the encyclopedic collection housed in the Peabody Museum of Salem, a collection unmatched in its breadth and variety, even in any institution in Japan.

He left Japan in February of 1883, stopping briefly in three Chinese cities, Shanghai, Hongkong and Canton. His time was short, but he was practiced at making good use of it, and he sketched energetically and took many notes. These were put to good use later in publications such as his widely-read article "Latrines of the East" (1893), and his book *Glimpses of China and Chinese Homes (1902).* He was appalled at the squalor and lack of concern for basic matters of hygiene in the port cities (where the contrast with Japan was very sharp), and he was offended by the poor manners of the natives and their expressions of anti-foreign sentiment. But he was not about to judge them, for he remarks philosophically: *"A pleasant country this! It made me mad, and yet considering the horrible way in which they have been universally treated by Christian nations, I don't blame them in the slightest. Indeed, if I was a Chinese, I would do the same and much worse."*

He came down with a stubborn case of dysentery, which seems to have laid him low for much of the subsequent voyage. A cholera epidemic discouraged him from stopping in India, and he finally landed in Marseilles in late April. On May 2, he was in Paris: *"After breakfast . . . I started for a Japanese exhibition of Art objects. . . . Met Mr. Bing, the great dealer in Japanese Art and M. Louis Gonse, director of the* Gazette des Beaux Arts. *The united collections of pottery seemed poverty itself in contrast with my accumulations. . . . From there [the Louvre] to Bing's store and saw the largest stock of Japanese pottery I have yet seen, but such prices! If my collection could be retailed for half what Bing charges I should make Vanderbilt jealous."* A week later he was at the British Museum: "Mr. Franks was very cordial and pleasant; we lunched at his house and he brought a number of *cha-ires* [pottery tea-caddies] in drawers, and I named a number of them which were wrongly labeled." After seeing the sights in London and Liverpool, and calling on various colleagues in the sciences, he boarded the *Servia,* and was back in Salem by early June.

The harvest of his labors abroad was already in Salem when he arrived: his accumulation of notes and sketches, the crates of pottery, and the trove of ethnological objects. Studying and writing on this host of varied materials would preoccupy Morse for the rest of his life. He had borrowed a large sum of money to buy his pottery (which now amounted to about 5,000 pieces), and he now had a two-story addition built on his home in order to house it, sinking him further into debt. The formidable task of cataloging, organizing, and installing displays of the Japanese objects in the museum required several years, but the collection was so extensive that only a small portion of it could be exhibited.

In 1885, Morse produced an important work, *Japanese Homes and Their Surroundings.* Intrigued by Japanese domestic architecture over the years, Morse had taken voluminous notes and made hundreds of superb sketches (No. 31) during his travels throughout the country. The results appeared initially in installments in the *American Architect,* and were then published in book form. A review in the *Salem Register* of Dec. 17 notes: "No such book has ever before been published about Japan, if, indeed, such a work has ever been written about the dwellings of any nation in the world. The drawings are very numerous, and exhibit rare delicacy and vitality." Morse's ability to organize his material in a systematic, instructive manner is revealed in another paragraph in the review: *"The various items of rooms, furniture, gateways, fences, gardens, objects of art, etc., are described in detail in*

skillfully grouped sections, each one of which is monographic, and illustrated with pictures of articles in the class under consideration. In this way may be gained a perfectly clear and interesting idea of every phase of a Japanese home of the middle class, while frequent allusions to houses of the peasantry and of the wealthy people give a broad aperçu of the everyday life of the country."

central focus of a lively new program of public education instituted by Morse. Over the next five decades, hundreds of public lectures were held there, ranging over the broadest variety of subjects relating to botany, zoology, geology, ethnology and exploration. By the end of the century, however, the Academy was once again badly cramped for space, for its acquisitions had grown im-

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The *Spectator* of London was also enthusiastic: "The style is easy, and the author knows his subject, while his enthusiasm proves his sincerity and enlists the sympathy of the reader. Above all, the illustrations, which are the author's own, are not only accurate portraitures of the ins and outs, quaint corners, and novel arrangements of a Japanese interior, but are really beautiful specimens of xylography, . . ." The book was both a popular and a critical success, and has been reprinted at least twice. Many American architects read it with interest, and utilized ideas from it in their designs; and evidence of its comprehensiveness and accuracy is attested to by the fact that it remains a basic source of information to the present day.

In 1886, a two-story addition to East India Marine Hall was completed. East Hall, as the second level was called, provided extensive exhibition space and Morse installed the ethnological materials there. A large lecture room, known as Academy Hall, took up most of the ground floor, and became the

pressively over the years, and additional room for exhibition, storage, and other facilities was badly needed. Morse, speaking at a luncheon in 1900, commented proudly on the growth of the collections: *"The ethnological collections have been quadrupled in extent; the zoological collections have been largely increased; the geological and mineralogical collections of Essex County have been created, thanks to the indefatigable industry of Mr. John H. Sears aided by the liberality of Mr. David Pingree; the local collections of mollusks and other invertebrates have been largely extended. In the ethnological collections those representing Japan and Korea have been literally created; the Korean collection is one of the most important in the country, while the Japanese collection is by far the largest in the world. The only Japanese collections of ethnology of importance and value approaching ours are in the older Siebold collection in Leiden, the younger Siebold collection in Munich and the collection in Leipsic."*

Morse worked diligently to make the collection of Japanese materials even more comprehensive and more representative of the whole range of creative ingenuity and beauty that typified the traditional culture of Japan. The pieces he had personally assembled in Japan constituted a superb nucleus for the collection, but he sedulously continued to supplement it, using institutional funds on occasion, but also encouraging, with notable success, gifts from donors who shared his vision and saw the importance of making the collection as complete as possible.

Somehow, despite his museum duties and his speaking schedule, he also found time to energetically pursue his research. During his residence in Japan, he had been introduced to Japanese archery, and was surprised to find that it differed in many details and methods from archery in the West. Puzzled by these differences, he began an investigation of the use of bows in various parts of the world. Morse studied nothing that he did not study thoroughly, and his search for developmental lines and varying technical traditions led him to a sweeping historical study of archery from the time of the Assyrians down to the methods in use by contemporary primitive peoples. He saw that methods of arrow-release varied widely, and he developed a theory of five categories of release, which varied according to time, geographic locale, and stage of cultural progress. A pamphlet, "Ancient and Modern Methods of Arrow-release," was published in 1885, and Morse continued to collect materials on the subject, and lecture on it for many years. He was kept regularly supplied with information on the subject by enthusiastic friends, who came across data in their own studies and travels to distant places.

In the summer of 1887, Morse, who had just completed a term as President of the American Association for the Advancement of Science, went as a delegate of that organization to the meeting of the British Association for the Advancement of Science at Victoria University, Manchester. He delivered a paper before the ethnological section on arrow-release, demonstrating his ideas with the use of actual implements. There were, of course, lighter, non-scholarly aspects to the meeting. He attended the dinner of the *". . . Red Lions, members of the BAAS who meet to make great fun. . . . [I] was seated near the King Lion, Sir Robert Ball. . . . I may say here that during the entire dinner at intervals a roar would start, each roaring as near a lion as possible. No allusion to members is permitted; it must always be 'lion.' . . . I was told, if called on, I must not say ' "Mr. Chairman," ' but ' "may it please your majesty." ' The applause of the lions is shown by standing up and shaking or wagging their coattails. Now it may be faintly imagined how ridiculous . . . and how really comical [it is] to see men whose fame is known throughout the world standing up wagging their coattails and growling like lions."* Another high point of the trip was a ride in the locomotive of an express train. *[I had] a pass to ride on the engine of the fast express to York and return. . . . I took the fireman's seat as he was busy most of the time piling in coal. . . . When it is considered that 570 trains pass in and out of Manchester station daily and we were traveling at a rate of 63 miles, you may imagine the excitement of the ride. . . . It was terrific when we tore by a station with tracks and switches filled with cars, but the most thrilling was plunging into a black tunnel two and a half miles long. . . ."*

After visiting the British Museum once more to inspect its Japanese pottery, Morse crossed over to the continent. Moving rapidly in his characteristic manner, he visited scholars and institutions who reflected various aspects of his own diverse interests. He went first to Oslo, then Stockholm, Copenhagen (where he was pleased to find that the mayor was a malacologist), and on to Kiel, where he met Prof. Haas, who was a fellow student of Brachiopods. *"It was delightful to find an enthusiast on the Brachs. He told me he had collected and studied them since he was a boy. . . . He called my attention (in a French volume on brachiopods, lately published) to figures copied from my papers on the subject."* In Hamburg he was received by the director of the museum, Dr. Brinckman. *"Told him briefly I would like to see the Japanese pottery, whereupon he became quite delighted and showed me proof sheets of work he is writing on the art industries of Japan and said the second volume had been delayed by his embarrassment in regard to pottery. . . . He went off in most enthusiastic praise of* Japanese Homes, *said it was the greatest work on the subject and he frequently had to quote from it; I saw he did not know me, so I interrupted him by telling him it was my book. It was amusing to see him open his eyes, grasp me again by the hand and express his delight at meeting me. He dropped everything and devoted the day to me, introduced me to several as 'the greatest authority on the Japanese nation' and, indeed, nearly turned my head."* Next he was off to Berlin, where the director of the Ethnological Museum

showed great enthusiasim for his studies on arrow-release. *"Were it not for the Japanese pottery that must be worked up I would go into a monograph on archery. Dr. Luschan expressed a wish that I would come to Berlin and make a special study of archery implements, offering me every facility for study and examination. The offer was certainly tempting, but it is useless for me to think of it now."*

After brief stops at Dresden (where Morse called on Leopold Blashka, maker of the famous zoological and botanical models in glass), Leipzig (where he discovered the Ethnological Museum contained a large collection of Japanese pottery, which he dutifully identified), Weimar and Nuremberg, he finally arrived in Munich. He went directly to the museum, where he studied eagerly the Japanese ethnological materials collected by his famous predecessor in this field of interest, Dr. Phillip Franz von Siebold (1796-1866), who, as an employee of the Dutch, had spent five years in Japan half a century earlier. Next he was off to Zurich and Berne, where he visited the Armory, and was allowed to shoot a crossbow at a wooden wall. Morse notes: "It did not go anywhere near where I shot at and the force was certainly not equal to my forty-pound bow. . . . Found a most perfect representation of the Mediaeval Mediterranean release in a 15th century Burgundian tapestry at the Historical Museum."

From Switzerland, Morse returned to Freiburg, where he intended to call on Ishikawa Chiomatsu, one of his first group of students at the Imperial University in Tokyo, who now was pursuing research in Europe. Ishikawa was unfortunately away, but Professor Weidersheim, an associate, showed Morse around the city in a carriage. Ishikawa, in his preface to the Japanese edition of *Japan Day by Day*, reminisced: *"They were passing along Kaiserstrasse when Dr. Morse drew Weidersheim's attention to the roofs of the houses, pointing out to him that they were covered with tiles which, Morse declared, were Roman and more than a thousand years old. After Morse left, Weidersheim told archaeologists; they made investigations and to their wonder found that the tiles were just what Morse had said they were."* Morse had become intrigued by the use of roof-tiles in Japan, and, predictably enough, had assembled much information and made many sketches of their forms and methods of use. Here, as in the case of his research on arrow-release, was a subject that had first caught his attention in Japan, and led him to a systematic study of tiles wherever he went. The results of his efforts were published in the *Bulletin of the Essex Institute* (vol. XXIX) in 1892 under the title "On the Older Forms of Terra-cotta Roofing Tiles." Inspired by the author's multiple preoccupations with the evolution of form, architecture, archaeology, and the cross-currents of cultural influence, it was widely praised by scholars of various disciplines.

On Nov. 11, Morse was in Leyden, where he went to visit the Ethnological Museum. *"Dr. Leverrier took me . . . to the Japanese museum in a building by itself and a very interesting collection it makes. Many large bronze* daibutsu, *lacquer, dolls, dishes, etc. The collection of pottery is very poor, a few objects of interest only. . . . On the way to the station he (Dr. Shmetze) told me about my* Japanese Homes *book and how he liked such and such descriptions. It seemed odd to be walking the streets of a Dutch city hearing quotations cited from my book."* The next day he was in Paris, where he went directly to Bing's. *"Met there Louis Gonse, who immediately invited me to breakfast with him the next day; and Bing invited me to dinner afterward. . . . Spent the rest of the day picking out from among the thousands, a few that will fill important gaps in my collection. . . . Saw with great envy a number of Ninagawa's earlier types which Mr. Bing bought in Japan before I became interested in the subject. Nothing could induce him to part with them. November 16, 1887: . . . Met Mr. Bing by appointment and to Mr. Guimet's office where he has brought together a large collection for an Oriental Museum now building which he is to present to the city . . . ; a large collection of pottery but only a few good pieces. (Guimet) gave me his works on Japan, chiefly traveling experiences as he went to Japan accompanied by Régamey, the French artist."* On Nov. 29, Morse, who had been in England for several days, notes in a characteristic yet cryptic manner: "To Paris this evening, reaching there next morning at six; spent the entire day at Bing's and left Paris eight P.M., reaching London next morning at six, having been in my clothes two days, but have made the greatest addition yet to the collection."

Back in Salem, Morse was soon back at his routine of museum duties during the day and study at home in the evenings. But the noise of railroad whistles from the freight yards near his home was a constant source of irritation to him, and he produced a pamphlet, printed at his own expense, entitled *The Suppression of Unnecessary*

Noise, which was widely circulated. Morse waged his campaign vigorously, battling alone at first, but gradually gaining supporters, such as Charles Eliot Norton of Harvard, as the years passed. He was still championing the cause of noise suppression almost two decades later when he wrote to his friend John Gould: *"Hardly a day passes that a horny-handed son of toil doesn't thank me in the street for my efforts in the direction of stopping the Steam Whistle (factory whistles had also become targets of his campaign). The smaller noises affect only the immediate neighborhood; the hand organ I would not suppress, as the children enjoy it and it don't begin at midnight. But the whistles . . . wake up invalids in the next county, and these I propose to stop."* He made a habit of writing to local newspapers to complain that excessive noises were injurious to the populace and also depressed property values. It is interesting to note that Morse was also concerned with a variety of what would today be called "environmental problems," and his letters to various newspaper editors also expressed his antipathy for smoking (although he could not break himself of cigars), the nuisance of smoke caused by burning soft coal, dirty public facilities, and water and environmental pollution.

Morse's huge collection of Japanese pottery was now comfortably housed in its special addition to his home in Salem. The collection was, of course, renowned among devotees of Japanese art everywhere, and offers had been made to him both for individual pieces and portions of it. Morse's life and that of his family had never been a comfortable one primarily because he had used such a large portion of their funds (as well as money borrowed from John Gould) to acquire the collection. But Morse was naturally unwilling to see it broken up after his enduring efforts to make it as complete as possible. In 1888, rumors that the Metropolitan Museum of Art in New York was interested in buying the collection caused consternation in Boston, where a drive was soon initiated to purchase the collection for the Museum of Fine Arts. But the collection was worth a great deal of money, and the drive went slowly. A small pamphlet, issued in 1891 to advertise the effort, contains a brief description of the contents and characteristics of the collection, together with enthusiastic statements encouraging its acquisition for the museum by various people, including Ernest Fenollosa (now the Curator of the Japanese Dept. of the MFAB), Louis Prang, the artist and publisher, and Denman W. Ross, the noted collector and patron of the museum. After what seem to have been strenuous efforts, a sum acceptable to Morse was finally assembled, and the collection became a part of the holdings of the Museum of Fine Arts in 1892. Morse had accepted a sum several thousand dollars below what he had asked for the collection, and in consideration of his gentlemanly compromise, he was offered the post of Keeper of Japanese Pottery at the museum at an annual salary of one thousand dollars. Relieved that the protracted negotiations were finally settled, Morse wrote to John Gould on March 5, 1892: ". . . my pottery is squared up and after paying my bills I shall have something to invest."

In the following years Morse systematically reviewed and studied each piece of pottery. The results of these labors were finally published in 1901, in his encyclopedic work, the *Catalogue of the Morse Collection of Japanese Pottery.* This monumental work represented a new stage in the investigation of the subject, and remains a valuable, and in some respects unique research tool to the present day. Compliments on the catalogue came from every quarter. R. L. Hobson of the British Museum wrote: *"In cataloguing the collection of Japanese pottery in this museum I have made myself very familiar with your magnificent 'Catalogue of the Morse Collection.' Indeed I may say that it has been my mainstay. I found it invaluable for the identification of the marks as well as for the information given about the potters and kilns."* The value of the book's contents may be judged from the fact that forty years later the Japanese found it wiser to translate Morse's work into Japanese than to write a new book on the subject.

The Peabody Museum's collection of Japanese ethnological materials had grown steadily under Morse's supervision, and by the turn of the century the need for exhibition and storage space was critical. In 1904 a successful appeal for financial assistance was made to the patrons of the museum and the public, and in 1907, a new two-story wing was completed. Although many had contributed, the largest portion of the funds for construction had been provided by Morse's longtime friend, Charles Goddard Weld (1857-1911), and the new structure was appropriately called "Weld Hall." Weld had received his M. D. from the Harvard Medical School in 1881, but he retired from surgical practice after a few years. He traveled widely and, like a number of others who were influenced by Morse's infectious interest in Japan, visited that country, and became a studious collector

of Japanese swords, sword accessories, armor, and other crafts. It was Weld who, in 1886, bought Ernest Fenollosa's great collection of Japanese paintings, and subsequently presented it to the Museum of Fine Arts, Boston. Weld's life presents us with an ideal example of the farsighted, public-spirited benefactor, for he contributed discreetly and generously over the years to a variety of hospitals, educational institutions and scholarship funds, as well as museums. He was a notable supporter of the Peabody Museum of Salem over the decades, and evidence of his patronage may be seen in many of the objects included in the exhibition. With the completion of Weld Hall and the large storage room in the basement of the building, permanent facilities for the exhibition and preservation of the Japanese materials were finally available, and Morse was able to install the instructive display he had planned for a quarter of a century.

Morse's capacity to carry on a variety of time-consuming activities simultaneously did not diminish in the later years of his life. In addition to carrying on his duties as a museum director and waging his campaign against "noise pollution," he continued to speak and publish on his typically diverse array of interests. These dealt with zoological topics such as his investigations of brachiopods, land snails, lamellibranchs and exotic insects, as well as astronomical and ecological matters, his studies on pottery, book reviews, and observations on acquisitions at the museums in Salem and Boston. He wrote to John Gould on May 1, 1910: *"I have just come across a letter of yours in a potsdam or some other damn deposit on my table. . . Life is too short to write an answer so remind me of it when I see you next. . . . I keep my engagements on a blue card eighteen inches long and four inches wide, a sheet for each month, as it can be found among my papers. If I could show you these cards you would see that every day with rare exceptions I have an engagement and sometimes two. Committee meetings, lectures, business meetings of Boston Society of Natural History, American Academy of Arts and Sciences, Boston Scientific Society, Malacological Society, of which I am president, Salem Civic League, Hawthorne Memorial Association, etc."*

Giving public lectures had long since become a habit for Morse, and he continued to accept invitations. He spoke with an easy delivery, and invariably enjoyed a pleasant rapport with his audiences. He had long since perfected that talent of coordination necessary to simultaneously speak and draw his instructive sketches on the blackboard (No. 32), and on occasion he would still perform his entertaining tour de force of synchronistic drawing with both hands. The latter ability, which seems to have involved complementary bi-lateral movements of the hands, rather than independent motions by each hand, appears to have led certain scientists to believe that it was the result of some special physiological gift, for Morse noted in a letter to John Gould of April 7, 1913: *"The Wistar Institute of Anatomy, Phil[adelphia], wanted my brain. I told them to send me a proper jar for it and I would pay the bill. You should see the jar, with my name etched on it, date of birth, residence, etc. A ripper, and wouldn't let me pay for it. It's a work of art."* Morse's brain did eventually go to the Wistar Institute, but dissection appears to have revealed nothing unusual.

Morse's busy schedule kept him on the move, and his varied interests kept his mind preoccupied. He set off for Boston one morning to give a lecture on Japanese pottery at the Museum of Fine Arts, and it was not until he took off his overcoat on the podium that he was aware that he had put on the same clothes he had worn to a banquet that had not ended until late the previous evening. As a consequence, the morning lecture had a special air of formality, for he was in his full evening dress.

Noting that he did not have adequate time for his research, Morse surprised the trustees of the Peabody Museum with a letter of resignation in March of 1913. He was now seventy-five, and there was nothing unreasonable about his request. The trustees rejected it, however, implying that he was irreplaceable, and instead rewarded him with a year's leave with pay. In 1916 he was named Director Emeritus, with full salary. However, the habits and enthusiasms of a lifetime were ingrained, and he continued to come to the museum, where he now found more freedom to pursue his studies.

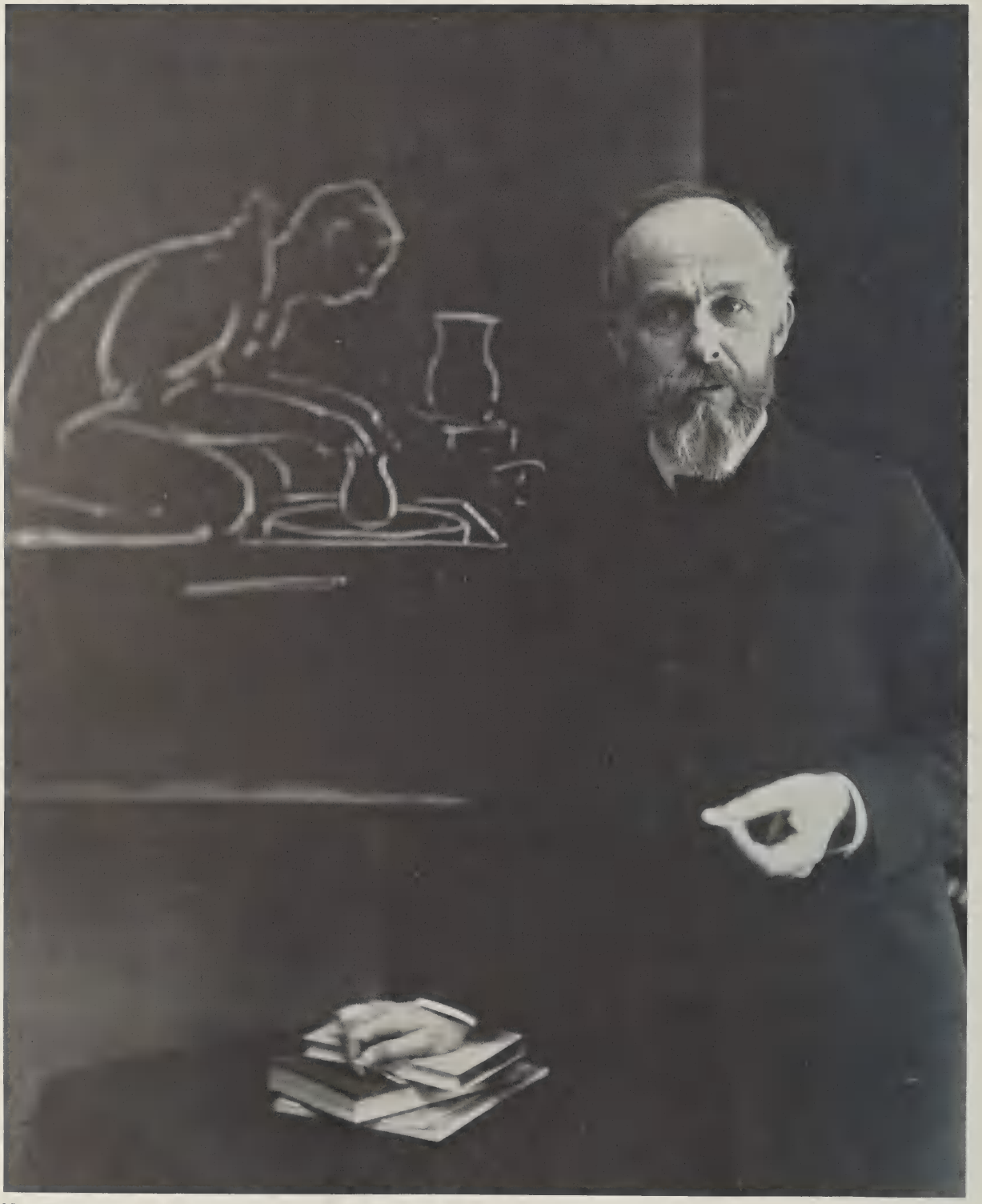
But life was not all work for Morse, and he always found time to enjoy the company of friends. He was a regular participant in the activities of the Tavern Club in Boston, where practical jokes and outlandish fun-making were customary. At one St. Valentine's gathering he was humorously eulogized by Henry M. Rogers. The last two stanzas read:

"He will tell you of Herschel and Darwin and Kant
Of the Snoozers who know of every known plant
And have lived with the five-footed horse;
Not Dodo nor ape nor man-eating shark
Nor dog with his tail in the place of his bark
Can puzzle our Edward S. Morse.

So hail to the chief of the mollusk and clam
And hail the Professor who uses his damn
With precision and artistic force;
And hail above all to him from Japan
Who knew all there was ere the others began
My valentine, Edward S. Morse.

Morse was honored at the Club on the evening of Jan. 14, 1916. After the usual fine dinner and good music, he was the subject of humorous verses written for the occasion. The first half of M. A. DeWolfe Howe's offering reads:

'You are old, Father Edward,' the young man said,
'And your beard is becomingly hoary,
And how do you manage to pack in your head
Such a treasure of ancient story?'



No. 32

'I carry my scissors wherever I go,'
Said the sage, 'And make many a clipping!
Now here is my latest—I got it from Joe
(Not Millet, but Miller)—it's ripping!'

'You are old,' said the cub, 'yet at tennis, they say,
There are none who would dub you a vet!
It's all very well like a Peabo to play—
But why keep on jumping the net?'

'In my youth,' Father Edward replied with a wink,
'They thought me a witch—or a wizard—
For Salem was full of them then—and I think
'Twas my jumping that saved me my gizzard.'

William Sturgis Bigelow, who was present at the happy affair, wrote to Morse three days later: *"... You were extolled by everybody as past master in everything you have undertaken. Altogether it was a great evening and I am more impressed than ever by your amazing vitality, from the fact that you said you took four cocktails before dinner. I took one of half-strength and dined on diptoast, a little thin smoked beef and tea and did not come to the club until half past eight.... With fifty years accretion of affection and respect...."*

After three years of work, Morse's *Japan Day by Day* finally appeared in 1917. As Dorothy Wayman notes in her biography of Morse: "Had Morse done nothing else in his career, he would still rank high as author of this one book. With the acumen of an anthropologist, the accuracy of a scientist, and the vision of an artist, he faithfully portrayed an alien civilization which he had studied just before it was engulfed by a tidal wave of western modernization."

He was the recipient of honors from various academic institutions, and he remarked proudly to John Gould on July 2, 1918: *"... now I hold three honorary degrees from the three oldest colleges in New England, Ph.D. from Bowdoin (1871), M.A. from Harvard (1892), and the Yale Sc.D. or D.Sc. The ceremony (at Yale) was very impressive. I wore a cap and gown and when the parchment was handed me by the President a hood of buff and blue was slipped over my shoulders.... Have just sent a third article to* Science *on fireflies flashing in unison."* Earlier, in 1898, he had received the Order of The Rising Sun in recognition of his services in Japan, and in 1922 he also was honored with the Order of the Sacred Treasure.

His health remained remarkably good until his last years. He was still playing tennis in his mid-seventies, and Kojiro Tomita, later the Curator of Asiatic Art at the Museum of Fine Arts, Boston, remembered that Morse was generally ready to take him on in a race up the grand stairway of the museum when he was close to eighty. In a letter of Oct. 21, 1918, he noted: *"When Yale gave me my degree, Verrill, two years younger, was too feeble to attend. Never touched a drop of liquor nor bit of tobacco in any form. With me rum and tobacco since youth. Feel full of the Devil all the time."*

Morse maintained his friendship with many of his Japanese students and their followers over the years, and he was regularly visited by Japanese who came to the United States and journeyed to Salem to pay their respects to the grand old man, who was even better known in Japan than in his own country. Illustrative of the lifelong affection with which he was held by his Japanese friends and admirers is an unusual gift that arrived for him from Tokyo late in the autumn of 1925. This is a red *"Jubo"* or "Longevity Cap" that had been sent to him by Sasaki Chujiro, who had been one of the eager, bright-eyed students in Morse's zoology classes almost half a century earlier. Sasaki, who had participated in the first excavation at the Omori shell mounds in 1877, and also accompanied Morse on the expedition to Hokkaido in 1878, was now an eminent professor at Tokyo Imperial University. In an accompanying letter, he explained the symbolism of the cap, noting that it duplicated in form the cap conventionally worn by the popular Japanese folk-deity *Daikoku,* and was presented to those who had reached their eighty-eighth year as a sign of felicitous respect and congratulation. The devoted Sasaki requested that Morse wear the cap on appropriate occasions and explain its significance to his American friends. Morse, who died about two months later, did not reach his eighty-eighth birthday according to Western reckoning, but Sasaki had calculated accurately according to the traditional Japanese method, where one's numerical age begins at birth. Thus, Morse's long and industrious life was celebrated in auspicious manner in accordance with the customs of both his native country and Japan, the land for which he felt such a strong affinity.

Although getting around was no longer easy, Morse was still resolutely pursuing his studies in his middle eighties, and he went in to his office at the museum often. In March of 1922, he wrote John Gould: *"I have had attacks of old age for the past few months ... indigestion, dizzy head, rheumatism in both arms, and thought I should never write again. Two weeks ago made an after-dinner speech at the Tavern Club ...*

and last Saturday afternoon lectured in Cambridge for the benefit of the Margaret Fuller Neighborhood House on the experiences of a collector. I am writing two or three pages daily on a second part of my arrow release." Several months later, one of the causes of his failing health was discovered: he had a strangulated hernia. The surgeons decided not to use ether because of Morse's persistent bronchitis, and instead employed local anesthesia. This made it possible for the spunky old man to smoke a cigar during the operation, the outcome of which seems not to have worried him, for he casually inquired if anyone had heard the results of the heavyweight title match between Dempsey and Firpo.

Early in September of 1923, Morse received news of the fearful earthquake that had leveled most of Yokohama and Tokyo. The cataclysmic tremors had triggered huge fires in both cities and the loss of life and destruction were staggering. Damage at the Imperial University was extensive, and Morse, thinking of how he might help in some constructive way, resolved to bequeath his entire scientific library to the institution. This magnanimous gift included the accumulated books, research works, and pamphlets collected over more than seven decades, and when finally packed, filled sixty-nine large crates. The gift was a significant one not only because of its value for research purposes but also because it presented an instructive history of the evolution of scientific literature during a period of remarkable progress in scientific investigation.

Although he complained testily of the ravages of old age, Morse continued to write. He submitted a manuscript on shell mounds and the evolutionary changes in their contents, accompanied by seven drawings, to *Science* at the end of summer in 1925. Published in October, it was the last scholarly contribution to come from his hand. On the evening of December 16th, after a short walk and a visit with the Brooks family across the street, Morse returned home and remarked that he felt tired. He went up to bed and shortly afterward suffered a stroke that left him unconscious. He passed away four days later, on December 20th.

Morse's passing was mourned by acquaintances and colleagues in Japan as well as the West. Miyaoka Tsunejiro, his faithful friend for half a century, notified everyone in Japan of his death, and in a long letter of condolence to Edith Morse Robb, he remarked philosophically: ". . . I have always had a notion approaching conviction that when the time came for your father to die, he would die without pain or lingering illness. He was a living dynamo and when it stopped, it simply stopped without further ado." Several obituaries appeared in America. J. S. Kingsley, in the *Proceedings of the American Academy of Arts and Sciences*, ended his with the statement: *"There are few left like Edward Sylvester Morse today. Our zoologists are specialists, and know but little outside their limited fields. Morse was interested in every side of the subject, and could talk intelligently on its every aspect. He was eager for more knowledge in every line and his questions always showed a basal information upon which he could build, and what he learned he retained."* The *Bulletin of the Boston Society of Natural History* published an affectionate account written by Thomas Barbour, who noted in part: *"To you who knew him best, it will seem strange when I say that he was a most orderly man, with a most orderly mind—for no one appeared at first sight to be more wholly informal. He begged every child to make and arrange a collection of something—whether birds' eggs, stamps, or cigar bands, it mattered not—and his own early habits as a collector bore rich fruit when, after Dr. Charles Weld's great gift, he rearranged the priceless collections at Salem. Here is a museum not only uniquely complete in its specialties, but the most rationally arranged and the most intelligently labeled museum in this or any other country. Every detail of arrangement Morse wrought with loving care. . . . How can we forget his excellent tennis at long past seventy; the cheery wave of his hand as he caught a swiftly passing street car; his whimsical ways? . . . His native charm and talent and Agassiz's loving guidance made Morse seem to be formed of finer clay than the products of our laboratories today—and I think he was."* William H. Dall, a longtime friend and occasional scientific adversary, concluded his obituary in *Science* with the paragraph: *"The salient characteristic of Professor Morse, apart from his devotion to science and love of the beautiful in art, was his boyish enthusiasm which captivated all who knew him. The versatility of his interests was unbounded, his love of fun overflowed at every opportunity; to meet him was to find a welcome. The world was brighter for his presence."* Perhaps the most accurate brief generalization of Morse is a single sentence in the introduction to his extensive bibliography, compiled by A. P. Morse of the

Peabody Museum in 1927. It states in a succinct yet touching manner: "Morse was a many-sided man who found the world an extremely interesting place in which to live and who did his best with notable success to make it even more so for his fellow sojourners."

The exhibition for which this catalogue was prepared is designed to illuminate Edward Sylvester Morse's passionate interest in Japanese culture and his deep admiration for the broad spectrum of creative traditions that flourished there over the centuries. Other pioneer Japanophiles were inclined to pursue their own scholarly specialties in the conventional manner, but Morse's enthusiasm and intellectual curiosity were such that he felt no inhibition about leaping across disciplinary boundaries to investigate any subject that drew his attention. The range of objects in the exhibition demonstrates the breadth and catholicity of materials that interested him—it represents, in fact, a sampling of almost every kind of innovative or creative product, ranging from the humblest artifact to the most refined artistic forms, produced in preindustrial Japan.

It is the objective of the organizers to introduce the viewer to the rich diversity of the collection through a selection of its finest pieces, which have been arbitrarily grouped into eight broad categories. The extensive number of pieces has made it unfeasible to describe each in detail here, but it is hoped that a series of definitive catalogues devoted to specific sections of this superb collection can be produced in the future.

ART HISTORICAL CHRONOLOGY OF JAPAN

Jomon Period: ca. 5,000-200 B. C.
Yayoi Period: ca. 200 B. C.- 300 A. D.
Kofun ("Tumulus") Period: 3rd to 7th century
Asuka Period: 552-710
Nara Period: 710-794
Heian Period: 794-1185
Kamakura Period: 1185-1336
Ashikaga Period: 1336-1579
Azuchi-Momoyama Period: 1579-1615
Edo Period: 1615-1867
Meiji Period: 1868-1912
Taisho Period: 1912-1926
Showa Period: 1926-

1. Archaeology

The Omori shell mounds: The birth of Japanese archaeology—the Jomon, Yayoi and Kofun Periods

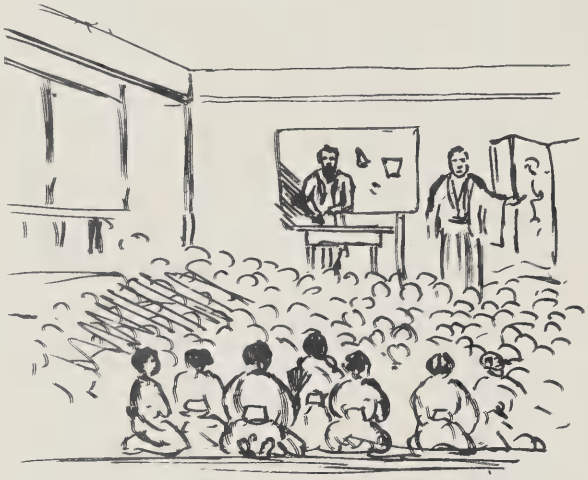
It is accurate to say that archaeology as a scientific discipline had its beginnings in Japan with Edward Sylvester Morse's investigations of the shell-mounds at Omori. In a brief article entitled "Traces of Early Man in Japan" published in *Nature* (Nov., 1877), Morse relates how he took his first train trip from Yokohama to Tokyo, and observed from the window how the construction of the railway (completed five years earlier) had cut through a group of neolithic shell-mounds. Morse immediately recognized the nature of these mounds (euphemistically referred to as "kitchen middens") because of his own extensive experience in the excavation of similar sites along the coast of New England with associates such as F. W. Putnam and Jeffries Wyman. Because of his personal interest in the physiological and evolutionary aspects of certain species of shellfish, Morse's earlier research on "kitchen middens" had focused primarily on their shell contents. But he knew enough about the other kinds of materials that one might logically expect to find at such neolithic sites that he predicted beforehand to his Japanese students that they might well come across "Ancient handmade pottery, worked bones, and possibly a few crude implements." When the initial excavations justified his prognosis by bringing to light interesting objects from each category, his students were amazed by his expertise. There was, of course, nothing prescient about this prediction for a trained naturalist with some archaeological training, but the fact that there was, as yet, no tradition of scientific excavation in Japan made his forecast seem almost oracular to the Japanese. The Omori site was very extensive: "*The length of the deposit along the embankment is about eighty-nine meters. The depth in the thickest part is four meters. Another exposure of considerable thickness is seen, back from the track at a distance of ninety-five meters, . . . The fields to the south show that in their cultivation another deposit has been removed. The mounds are nearly half a mile from the shores of the Bay of Yedo [now Tokyo Bay].*" Morse and his followers made a number of visits to the site (the first on Sept. 18), and dug into the mounds at various locations. They were usually assisted by laborers, who seem to have done most of the heavy work, and later carried the day's finds back to the train station (No. 33). The large body of materials were subsequently sorted out and classified back at the University, where they were later arranged in the newly established Archaeological Museum. The results of the systematic study of the Omori site and its contents was finally published in the summer of 1879. This pioneer work, *Shell Mounds of Omori*, was the first publication produced by the Science Department of the recently founded University of Tokyo, and the influential parent of that huge and ever-multiplying literature on site excavations that has appeared in subsequent decades.

No. 33 Laborers Returning from the Omori Shell-mound Excavations
Sketch from Japan Day by Day, *E. S. Morse*

Morse's investigations of certain species of shells from the Omori mounds revealed that they varied markedly from living species from nearby Tokyo Bay in their relative abundance and differences in size and shape, variations that Morse attributed to evolutionary change. Morse was a confirmed advocate of the ideas of Charles Darwin on evolution, and when Darwin was sent a copy of the Omori report, he responded with an enthusiastic and complimentary letter to Morse that recognized this further confirmation of his Theory, and closes: ". . . of all the wonders of the world, the progress of Japan, in which you have been aiding, seems to me to be the most wonderful."

Morse's lectures at the University and elsewhere were tremendously popular, and attended by many government and university officials as well as other influential, progressive people. At these lectures he not only introduced evolutionary theory, using the evidence of shells from the Omori mounds

to demonstrate this process, but he also fascinated the Japanese with his discussions of a hitherto unstudied prehistoric stage of their own culture (No. 34). Morse's work at Omori was an influential consideration in the decision by the Japanese Government to award him the Order of the Rising Sun in 1898; and two stone monuments stand today in the vicinity of the original mounds, perennial reminders of his pioneering research. Moreover, additional recognition of the historical importance of Morse's excavations there has come recently in the designation of a selected number of its former contents as Important Cultural Properties by the Japanese Government.



No. 34 Professor Morse Lecturing
Sketch from Japan Day by Day, *E. S. Morse*

The earthenware vessels (about fifty "more or less complete") and the thousands of sherds recovered from the Omori mounds constituted the first excavated collection of that neolithic pottery type that later came to be known by the term "Jomon" ("Cord-patterned"), the earliest pottery produced in Japan, which is characterized by its low-fired, hand-built, cord-impressed vessels (No. 35). Since Morse's pioneer investigations into the pre-history of Japan a century ago, significant progress has been made in establishing an archaeological time scale that now extends back beyond the Neolithic Jomon Period into much older Paleolithic stages. The Jomon Period has now been subdivided into several phases and ranges over a broad chronological span, beginning about 5,000 B.C. and extending in some regions up as late as about 200 B.C. The geographical distribution of Jomon sites is very extensive, ranging from islands situated beyond Hokkaido, to the north of Japan, and south as far as the middle of the Ryukyu chain of islands, in the vicinity of Okinawa (see map, Section 8).

No. 35 Pottery Vessel
Cord-impressed, Early Jomon Period, ca. 3000 B. C.
Height 25 cms.
By exchange from Yamanaka and Co., 1939

During the Jomon Period, village sites were often concentrated along protected bays where warm water currents produced natural breeding conditions for shellfish. The accumulation of discarded shells and other refuse resulted in the development of shell heaps. In addition to quantities of pottery sherds, stone artifacts, including celts, arrowheads and unusual tanged knife-scraper tools, are common (No. 36). Pit houses were used for habitation throughout the period, and remains of beans and millet have come to light that indicate, at least since middle Jomon times, some familiarity with agriculture. The position of the Jomon Period with respect to the development of subsequent Japanese cultural periods and its relation to the Ainu (see Section 7), are still the subject of varying opinions among archaeologists and ethnologists in Japan. Some have equated the Jomon people with the aboriginal Ainu population because of certain cultural similarities. Others prefer to terminate the Jomon Period with the arrival of a wave of Mongoloid immigrants, presumed to have

No. 36 Artifacts and Pottery Sherds
Jomon Period (5000-200 B.C.)
Rows 1 and 2: tanged knife-scraper tools and arrowheads, chert and obsidian. Purchased from Yamanaka and Co., 1934; Row 3: left—Jomon sherd from Sado, Gift of Dr. Seiken Takenaka to E. S. Morse in 1918, Morse Bequest; right—Jomon sherds from the Omori shell-mounds, collected by E. S. Morse, 1877-78, Morse Bequest.

come either from the southwest or from the Asiatic mainland, in the third or second century B.C. This new population brought with it bronze casting and advanced rice cultivation techniques as well as a new pottery type. Wheel-made for the most part, this new pottery is finer in execution and lacks the rich surface decoration of the Jomon vessels.

This new stage is known as the Yayoi Period, and is generally dated 200 B.C. to 300 A.D. Subsequent cultural development in the Japanese Archipelago is believed to have evolved primarily from the technologies and cultural manifestations of the Yayoi people, and in a sense it is here that the origins of later Japanese culture are to be found. During the Yayoi Period, the importation of bronze objects of Chinese manufacture, notably mirrors produced during the Later Han and Three Kingdoms periods, occurred with some regularity. In Japan mirrors became symbolically associated with the Sun Goddess, and were imbued with religious significance. Indigenous craftsmen also produced their own mirrors, bronze weapons, and strange, enigmatic, bell-shaped objects known as *Dotaku* (No. 37), which seem to have served some ceremonial or religious role, apparently associated with the fertility of the land. They have been found singly and in groups, usually interred at locations unrelated to burials or habitation sites. Excavations reveal that they were usually placed horizontally on high ground commanding a view, or at the intersections of trails.

About 300 A.D. a new wave of Mongoloid peoples arrived in Japan by way of the Korean Peninsula. This movement is thought to have been the initial phase of a larger Tungusic invasion from Mongolia that continued to arrive in the peninsula for another two centuries. These people were skilled in the use of horses and were apparently of bellicose temperament, for horse trappings

No. 37 Dotaku *(Bronze "Bell-shaped" Ritual Object, Middle to Late Yayoi Period, ca. 200 A. D. Gift to E. S. Morse from T. Kanda in 1918, Morse Bequest*

and arms make up a significant portion of the contents of their tombs. They also brought with them new funerary pottery forms, which closely resemble the prototypical vessels from Korean tombs of the Silla Period, and are known as "Sue" ware (No. 38). It was during this "protohistoric"

No. 38 Sue *Pottery, Mortuary Vessel and Stand*
Kofun Period (300-600 A. D.)
Height 16.3 cms.
By exchange from Yamanaka and Co., 1939

period that the ancestral line of the present Imperial Family rose to a position of supreme dominance. Known as the Kofun ("Tumulus") Period, it is characterized by the construction of huge burial tumuli which were frequently embellished by the installation of rows of earthenware figures, known as "*Haniwa*" (Nos. 39, 40), on the exterior surfaces of the gigantic burial mounds. The occupants were often interred in stone or earthenware sarcophagi, inside dolmen-shaped chambers constructed of stone, and were usually buried with a rich inventory of objects, such as horse trappings, weapons, iron armor, glass and polished stone beads, and bronze mirrors of native manufacture (No. 41). The mirror, because of its ability to reflect light, was regarded as being imbued with magical properties, and played a prominent part in shamanistic traditions from the mainland that were brought to Japan. With the

No. 40 Haniwa; *Male Figure*
Kofun Period, ca. 600 A. D.
Gumma Prefecture
Height 66 cms.
By exchange from Yamanaka and Co., 1939

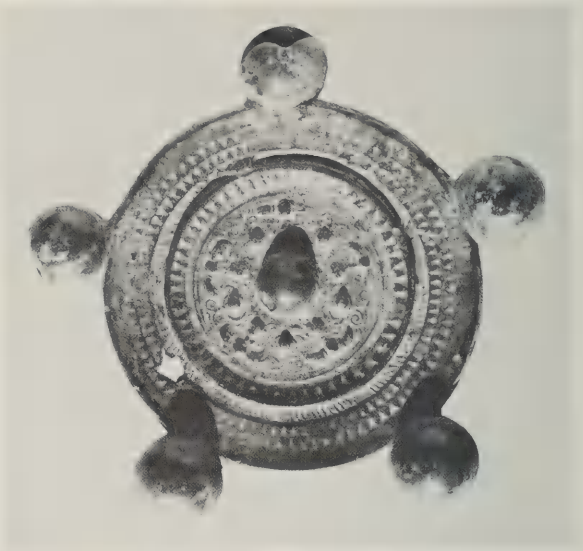
development of indigenous Japanese Shinto religious practices, it became the symbolic emblem of Amaterasu Omikami, the Sun Goddess and supreme deity of the Shinto pantheon. The practice of burying glass and semi-precious stone beads, often worked into a distinctive "comma-like" shape known as "*Magatama*" (No. 42), along with bronze mirrors and swords in the tumuli of the period indicates the ceremonial and religious significance of these three types of objects.

In their codified forms, they symbolize the legitimacy and power of each successive Emperor of the Imperial line.

Another aspect of Morse's antiquarian interests was his investigation of ancient roof tiles, which occasionally come to light in Japan at sites where large temple or palace buildings had once stood. A fragment of a roof tile said to have been unearthed at the earliest Imperial Palace site in Kyoto (No. 43) reflects Morse's fascination with the subject. The upper surface has the dark green glaze that distinguishes the tiles used on the roofs of the 9th-10th century Heian palace, and the bottom surface has an interesting inscription. It notes that the fragment was

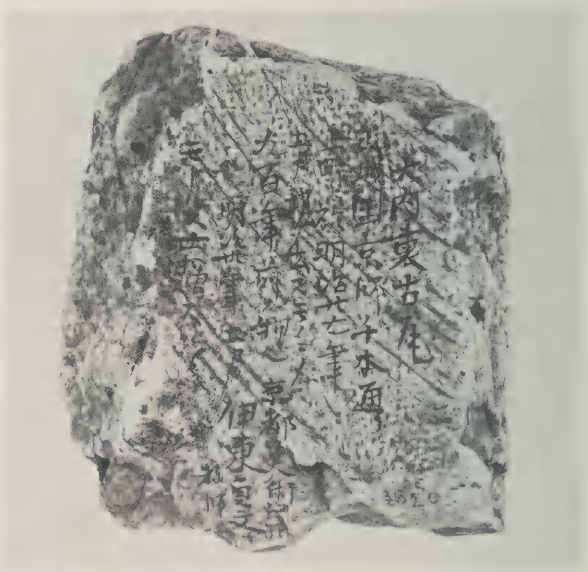
No. 39 Haniwa; *Female Figure*
Kofun Period, ca. 600 A. D.
Gumma Prefecture
Height 41 cms.
By exchange from Yamanaka and Co., 1939
Such figures were set up, often in large numbers, on the flanks of the extensive burial tumuli constructed during this period.

presented to Morse by an instructor from the Kyoto School of Arts named Ito (?)fumi in May of 1897, and that it had been found



No. 41 Bronze Mirror with Five Bells
Kofun Period, ca. 500 A. D.
The bells are a Japanese addition to mirrors originally copied from Chinese imported prototypes, and it is thought that the bells were added in order to produce sounds when carrried by shamanesses in ritual dances.
Circumference 17.4 cms.
Gift of E. S. Morse, 1898

a year earlier at Uemachi, Senbon-dori, Kyoto, Yamashiro Province, and was an ancient tile, 900 years old, from the *Daidairi* ("Imperial Palace Compound"). Although the circumstances of the gift are unclear, the fragment must have been delivered to Morse in America, and sent by the instructor to him because of a knowledge of his interest in tiles.



No. 43 Roof-tile Fragment
Heian Period, 9th-10th century
From the site of the Heian Imperial Palace in Kyoto
Gift from Ito fumi to E. S. Morse in May, 1897.
Morse Bequest

No. 42 Glass and Semi-precious Stone Beads and an Arrowhead
Kofun Period (300-600 A.D.)
The four "Comma-shaped" magatama *in the bottom row are the "sacred jewels" of Japanese mythology.*
The bronze arrowhead is 1.5 cms. in length
Purchased from Yamanaka and Co., 1939

2. Religious Arts

Buddhism: Icons and Artifacts—Folk Religion—Divination and Astrology

With the exception of several unsuccessful experiments with Spiritualism and mental telepathy during his youth, Edward Sylvester Morse's life presents us with the picture of a pragmatic scientist constantly preoccupied and fascinated with concrete matters that could be observed and analyzed. Thus, like many of the pioneer students of natural history, Morse seems to have been imbued with that optimistic view that there was, ultimately, nothing inscrutable in the world, no mystery that could not be unravelled through systematic investigation of the tangible components of nature. This confident rationalism made him skeptical of the supernatural or immaterial, and dubious about the claims of religion, either as a solace in this world or means of salvation in the next. It is not surprising, therefore, that unlike his younger (and perhaps more impressionable) contemporaries William Sturgis Bigelow and Ernest Fenollosa, who both stayed longer in Japan and took Buddhist vows, Japanese religion seems to have exercised no influence on Morse's personality. On the other hand, Morse was an indefatigable student of Japanese culture and it was from this point of view that we see him observing religious rites as aspects of human behavior with unmistakable empathy, and also admiring and collecting a broad variety of religious art forms with obvious enthusiasm. Thus, despite his brief statement in the Preface to *Japan Day by Day*, "Having little interest in Japanese religions—Buddhist or Shinto—or in Japanese mythology and folklore, no studies were made of these subjects," there are nevertheless many passages and illustrations in this work, as well as in his other books and articles, that contain instructive information about traditional religious matters in Japan, both Buddhist as well as Shinto practices, together with lesser-known details of the currents of humble folk religion. Brief examples of these have been included in the essay on Morse's life.

Japan's enduring religious festivals intrigued Morse, and he took obvious pleasure in attending them. Illustration No. 44 is a charm he acquired in November of 1882. *"During the month of November an interesting market is held back of Asakusa Temple, where a large number of booths are erected in the streets for the sale of curious charms to insure happiness and wealth. These charms are miniature bags of rice, twisted straw, and other symbols of plenty and happiness made of bamboo covered with bright-colored and gilt papers. In some the ship of fortune is represented holding the seven treasures; others are in the shape of a fan or rake with the mask of Otafuku, goddess of Happiness, in the centre, with various devices about the sides. It is curious to see the narrow streets and lanes closely crowded with people and lined with rudely constructed booths, on both sides, packed with these strange-looking charms and emblems, some of them of large size,*

No. 44 Charm to Insure Happiness and Wealth
Decorated with a mask of Okame, Goddess of Happiness; a rake for gathering riches; and emblems representing a money box and an account book, all to ensure good fortune.
Bamboo, paper, straw, and gesso.
Height 50 cms.
Collected by E. S. Morse, 1882
Morse Bequest

five feet or more in diameter. Throughout the day of the festival the people are seen returning home bearing these things in their hands, or riding in jinrikishas, and if the objects are large holding them up like banners. The objects were always mounted on a rod of bamboo. . . . Nearby was a Shinto temple, before which crowds of people were praying, standing seven or eight deep. . . . Nearby was a rude stage where some play was going on accompanied by a drum and flute which kept up an incessant noise without a moment's pause. Little children aided their parents in calling out the character of wares that were being sold in the crowd. Two beggars kneeling on the ground in an open space were the only evidence of poverty in the mass. A peculiar potato was being sold to be eaten raw or cooked; mochi was for sale in large slices; hairpins of the cheapest character—mere tinsel—were sold as souvenirs of the fair; and everybody was smiling and happy."

The last days of the year were particularly busy with the festive preparations for the New Year. *"During this month (December) there are a number of fairs held in the vicinity of the temples, the articles sold consisting of household decorations of straw for the New Year, shrines for the house, and children's toys. . . . It is astonishing what crowds of people throng these outdoor bazaars. . . . The streets on both sides were crowded with booths, and the people packed in a dense mass, many going to the temple to get their purchases blessed by the priests, holding them high above their heads to avoid their being crushed by the crowd. It was interesting to observe that at all these festivals the objects offered for sale were children's toys, religious or semi-religious decorations, and objects connected with their household shrines. When I read in the papers from home letters from missionaries saying that the temples are being deserted and the faith dying out, and then see the actual facts of temples crowded every day, temples being retiled and repaired, with every evidence of prosperity, I wonder at such false reports. The objects for New Year's decorations are made of rice straw, twisted and braided in various ways. It is customary to hang them over the entrance of the house and also over the household shrine. Many of the designs are pretty, and some of them indicate considerable skill in their construction (No. 45)."* There are many symbolic and decorative variations on this basic form, known as *"Shime-nawa,"* which consists of the "sacred rope" and hanging straw pendants. This is often embellished with miniature rice bales (No. 46) or natural adornments, such as sprigs of pine or bright berries.

No. 45 Shimenawa *New Year's Decoration Drawing from* Japan Day by Day, *E. S. Morse*

The chief focus of daily worship by individual families in Japan are the household shrines, and Morse describes these in his *Japanese Homes and Their Surroundings: "In nearly every house one sees perched up on a shelf called the* kami-dana *a curious little architectural affair, which on more special examination proves to be a model of a Shinto shrine, or a principal feature of a Shinto altar,—a circular mirror. On the shelf in front of this are a few lamps (or a single lamp) and trays, containing at times food-offerings. If the shrine is in the shape of a box, then accompanying it are various little brass stands, slips of wood with*

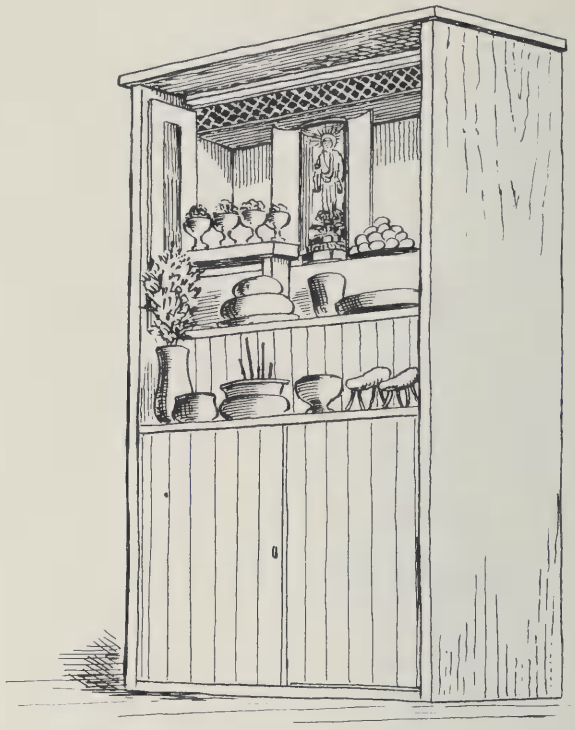
No. 46 *New Year's Decoration Made of Straw*
To observe the New Year, decorations such as this one are hung above the house entrance to indicate that the ritual housecleaning has been completed and good fortune is hoped for in the coming year.
Rice straw, height 95 cms.
Collected by George B. Frazer in 1905, gift to the museum in 1913.

characters written upon them, and in short a miniature representation, apparently, of the paraphernalia used in a large temple. The shelf is high up on the wall near the ceiling; and in old houses this region is black with the accumulations of smoke from the little lamp which is lighted every night, and which may have burned there for a century. These are the Shinto shrines.

The Buddhist household shrines, having a figure of Buddha or of one of his disciples, or perhaps of some other god, are much more ornate, and rest on the floor,—at least so I was informed. My informant also told me that the majority of the people worship at the shrines of both great beliefs, and that all Buddhists, unless very strict, have Shinto shrines in their houses.

Flowers and incense-burning usually accompany the Buddhist household shrine, while before Shinto shrines incense is not burned. Buddhist shrines have placed before them lamps of brass, or hanging lamps, while in front of the Shinto shrine candles of vegetable wax are burned. In unglazed, hand-made pottery called kawarake *oil is burned, which is also used for food-offerings. For offerings of wine, oval bottles of peculiar shape, with long narrow necks, are used; these are called* miki-dokkuri,—miki *being the name of the wine offered to the gods, and* tokkuri *the name of a* sake *bottle. In front of these shrines one may often see the inmates of the house bow their heads, clap their hands, and then, rubbing their palms together in an imploring gesture, pray with much earnestness."* Morse's beautiful drawing of the Buddhist household shrine of a humble family (No. 47) is done in fine detail, and shows all the ritual implements and offerings in place before the Buddhist icon. He notes: *"The various vessels were filled with boiled rice, with loaves of* mochi *made of a special kind of rice, and a number of unripe peaches. On the lower shelf, in the right-hand corner, are seen a sweet potato and a radish propped up on four legs, looking like toy deer or beasts of some kind."* It is probable that the offerings, as Morse depicts them, are those prepared in order to welcome the spirits of the ancestors during the summer festival known as *"O-Bon."* The sweet potato and long radish with legs represent the symbolic horses on which the spirits travel back to the other world after the conclusion of the festival.

Illustration No. 48 shows a different sort of Buddhist shrine, a portable variety designed to be carried by a monk on his back during peripatetic proselytizing and ceremonial

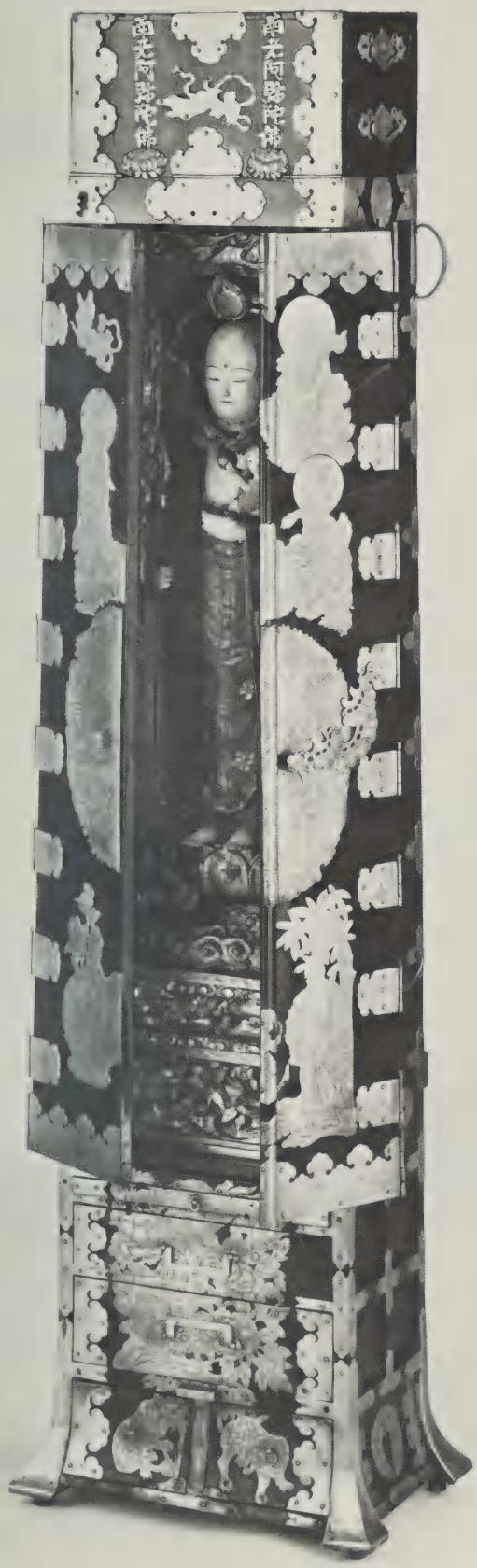


No. 47 *Buddhist Household Shrine*
Drawing from Japanese Homes and Their Surroundings, *E. S. Morse*

begging activities. An elaborate array of Buddhist deities, symbolic motifs and decorative devices, fashioned from sheet brass, adorn the surface, contrasting handsomely with the black lacquer surface underneath. The Buddhist invocation *"Namu Amida Butsu"* ("Hail to the Buddha Amitabha") appears twice at the top of the shrine. The phrase, the one most frequently used among members of the "Pure Land" Sects, is believed to guarantee the supplicant entry into the Western Paradise of Amitabha if repeated with sufficient religious fervor. Inside the shrine, standing on an elaborate gold platform, is a polychrome image of the compassionate Bodhisattva known as *"Jizo"* in Japanese, one of the most widely worshipped deities in the Buddhist pantheon.

A gong and striker, used to keep rhythmic accompaniment during the chanting of Buddhist sutras, is shown in illustration No. 49. The gong is affixed to a flat framework fabricated from thin brass sheet to reduce its weight so that it could be conveniently carried during religious activities.

The earliest piece of Buddhist art shown in the exhibition is a miniature pagoda (No. 50). It is one of one million ordered by the Empress Shotoku as an expression of



Buddhist piety, that were produced between 764 and 770. These were divided evenly, and donated to ten of the great Buddhist monasteries of the period. Into each was inserted a printed charm (*dharani*, or phrase of religio-magical import), which are among the earliest examples of printing preserved. The shapes of these miniature models of pagodas represent variations on the traditional three-story pagodas erected inside Japanese temple compounds, with the details and proportions modified so that they could be mass-produced on lathes. Although the famous Horyuji monastery still retains a large number of these pagodas, it is the only temple of the original ten where they are still preserved.

No. 49 Pilgrim's Miniature Gong and Striker
Gong used to mark time while reciting Buddhist prayers or sutras.
Inscription on back identifies the maker as Fukui Yoshifusa
Edo Period (1615-1867)
Bronze gong, brass base with engravings, length 23 cms.
Billings Fund, 1913

No. 48 Portable Buddhist Shrine
A black lacquer shrine with engraved brass fixtures. Inside is a polychrome image of the Bodhisattva Jizo. The shrine is constructed lightly so it could be carried on the back of a monk while proselytizing.
Edo Period (1615-1867)
Lacquered wood, height 170 cms.
Gift of the Museum of Fine Arts, Boston, 1914

The miniature representation of a Buddha made from low-fired clay (No. 51) is an interesting and unusual piece. An inscription written on the back in ink notes that it was recovered from the "site of the Yamada-dera," an ancient temple site located in the Asuka area, south of Nara. Dating the piece is difficult, but it has been suggested that it might have been made about 900 A.D. It was formed by pressing soft clay into a mould, a technique designed for mass-producing icons of this type.

No. 50 Miniature Pagoda Containing a Printed Dharani *Charm, ca. 764-770*
Gesso over wood, height 21.7 cms.
Presented to Albert B. Hart by Ichitaro Fukugawa in 1908, Gift of Albert B. Hart, 1925

The rare bronze finial from a monk's staff (No. 52) was presented to the museum in 1903 by Dr. Charles G. Weld. One of the few personal possessions a Buddhist monk was traditionally allowed was his staff. The series of metal rings usually attached to the finial are missing here. As the monk walked, these rings produced a jingling sound, which served to announce his coming to householders who provided him with alms, and also (because of the Buddhist concern for all sentient beings) warned insects to move out of his path so that they would not be accidentally harmed. In the center of this rare piece, which dates to the late 12th century, is a Bodhisattva flanked by two "Benevolent Kings" *(Ni-ō)*. Around the exterior are a monk and a layman in gestures of prayer, and three small pagodas.

No. 51 Pottery Image of a Buddha, ca. 900
Thought to have been recovered from the ruined temple site of the Yamada-dera, Asuka district south of Nara
Height 8.8 cms.
Gift of Dr. T. Takashima, 1910

No. 52 Bronze Finial from a Monk's Staff
Late 12th century
Height 25 cms.
Gift of Dr. C. G. Weld, 1903

No. 53 Bronze Seated Buddha
*Originally a component of a "*kakebotoke*"*
(hanging wooden panel with bronze Buddhist figures attached)
14th century
Height 22.7 cms.
Gift of Charles H. Parker, 1936

The small hollow bronze figure of a seated Buddha shown in illustration No. 53 was originally affixed to a hanging wooden panel together with other similar figures, a Buddhist icon type known as a *"kakebotoke."* It has a somewhat provincial quality, and may have been produced as early as the 14th century.

A stone image of the Bodhisattva Jizo (No. 54), produced about three centuries later, has the same sort of direct, dramatic quality. Jizo remains, to the present day, one of the most revered Buddhist deities in Japan, and plays a prominent role in folk religion, where he is worshipped as the guardian-protector of children and travellers. This fine piece of stone sculpture was purchased from the E. S. Morse Lecture Fund in 1904.

One type among the extensive repertory of symbolic devices traditionally used to embellish the interior of Buddhist worship halls is the *keman* (No. 55). The *keman* is a hanging form, and the example shown here, which was executed during the Edo Period (1615-1867) has a Sanskrit symbol above a lotus platform. The elegant contrast of gold and polychrome over a lacquer base exemplifies the rich decorative quality that is characteristic in much of traditional Buddhist art.

The dramatic hanging scroll in illustration No. 56 shows a demonic figure holding a schematic circular depiction of the Five Gati, the successive realms of the Buddhist cycle of transmigration: hell; the hungry ghosts; animals; human beings; and

No. 54 Stone Image of the Bodhisattva Jizo
Early Edo Period, 17th century
Granite, height 40 cms.
Purchase, Edward S. Morse Lecture Fund, 1904

No. 55 Keman *Temple Hanging*
Edo Period, 18th-19th century
Lacquer, gilt and pigments over wood, with metal pendants
Height 34 cms.
Gift of Dr. C. G. Weld, 1902

No. 56 *Buddhist Hanging Scroll with a Depiction of the "Five Realms," 18th-19th century*
Polychrome on paper, 119 x 56 cms.
Collected by E. S. Morse in Japan, ca. 1882
Morse Bequest

devas. Situated around the exterior are portrayals of various ramifications of the stages of life and death, while below is a literary description of the contents above. Icons such as this one served as effective pictorial devices for explaining Buddhist dogma and imbuing the viewer with a sense of religious conviction.

Votive paintings, known as *"ema"* have a very long history in Japan. The term *ema,* literally "picture-horse," has its origin in the paintings of horses that were substituted for actual animals customarily presented to Shinto shrines in ancient times. Thus, the prototypical *ema* were paintings of horses (a tradition that still exists), but with the passing of the centuries, the repertory of subjects grew extensively, eventually to include pictures or symbols of the broad range of human aspirations or desires. Illustration No. 57 shows a lively example, with milk flowing profusely from a mother's breasts into a receptacle, a graphic expression of the donor's wish. The black framework symbolizes a shrine, with its slightly peaked roof and supporting pillars, with the structure completed by the hanging curtain above the figure. A *gohei,* a sacred Shinto symbol with cut and folded paper strips attached to a wooden staff, appears to the left. *Ema* such as this one, done by anonymous craftsmen and painted in a lively, spontaneous manner with bright pigments, exemplify the rich, enduring traditions of folk art in Japan.

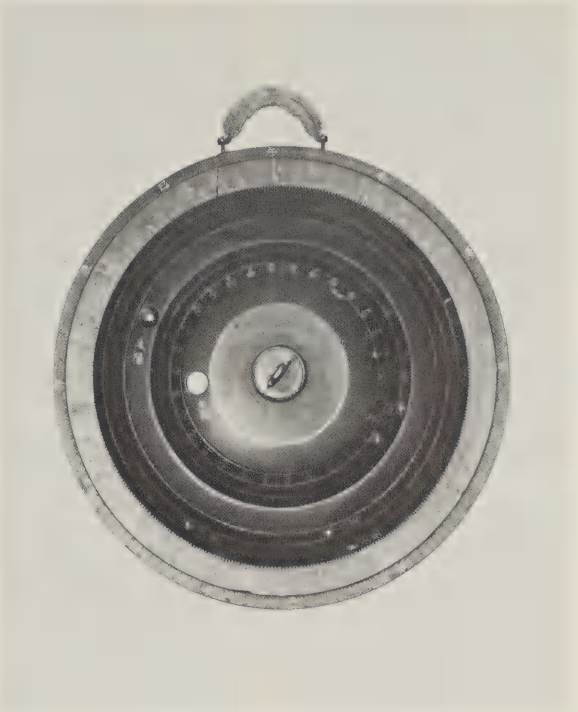
Another aspect of the varied religious currents that have flourished in Japan is revealed in illustration No. 58. This is the signboard of a specialist in astrological divination and fortune-telling. These practices are based on Chinese cosmological ideas and geomancy, and the concept that all the forces in the universe are the result of the

No. 57 "Ema" *Votive Painting*
From the Asakusa Shrine, Tokyo
Dedicated to the shrine deity in the hope that a mother's breasts will have a plentiful supply of milk
20th century
Polychrome pigments on wood, 16.5 x 25.5 cms.
Gift of Charles H. Parker

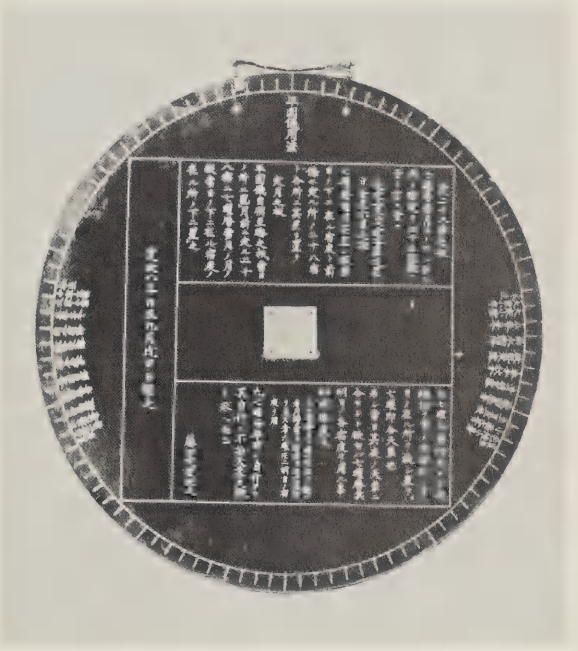
interaction of the dual principles of Yin and Yang, an idea symbolized by the sun and moon at the top of the sign. In the center are two of the Chinese "eight trigrams" used in predicting the future.

An interesting instrument for calculating astrological and calendrical matters is shown in illustrations No. 59 (front) and No. 60 (back). This complex device, called a "planisphere," consists of ten rotating wood discs representing the days of the month, the forces of Yin and Yang, the twelve zodiacal animals, and various planets, that can all be correlated in order to determine whether or not the time is auspicious for certain projects or activities. The inscriptions on the back are instructions about how to make such calculations.
The piece was made in 1796, and presented to the museum by Yamanaka and Co. in 1916.

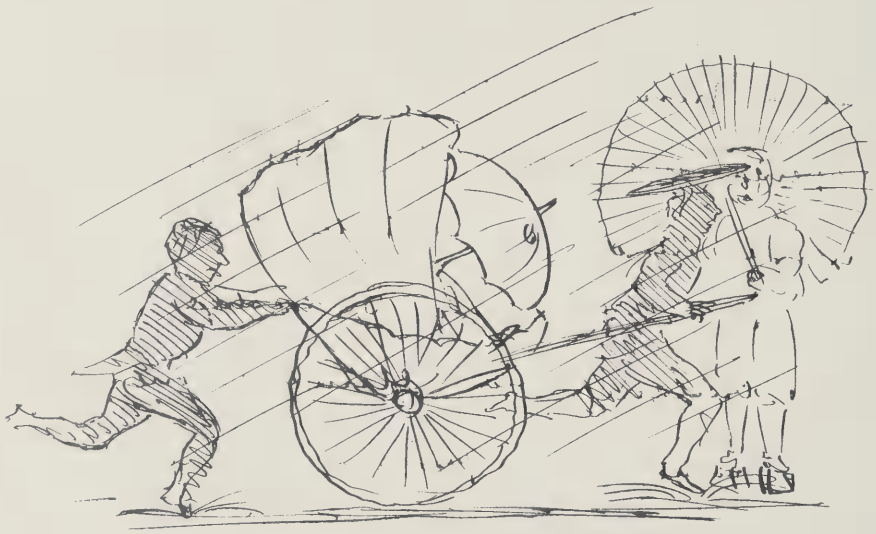
No. 58 *Signboard of a Specialist in Astrological Divination and fortune-telling, 19th century*
Gilt and lacquer over wood, height 87 cms.
Billings Fund, 1914



No. 59 *"Planisphere" Device for Calculating Astrological and Calendrical Matters, Dated 1796*
Lacquer and metal fittings, diameter 38 cms.
Gift of Yamanaka and Co., 1916



No. 60 *"Planisphere" (reverse side with instructions)*



3. Trades and Occupations

Carpenters and Craftsmen, Firemen and Merchants, Fishermen and Sailors

Among the writings of Edward S. Morse, *Japanese Homes and Their Surroundings,* first published in 1885 and still available in modern editions, stands out as his most definitive treatment of a Japanese subject. It reveals his characteristic interest in a broad range of human activities, and examines Japanese domestic architecture from historical, technological and ethnological points of view. In the preface Morse expresses his hope that it ". . . may result in preserving many details of the Japanese house . . . which in a few decades . . . may be difficult, if not impossible, to obtain." He continues, a few lines later, with an admonitory comment: ". . . since nothing can be of greater importance than the study of those nations and peoples who are passing through profound changes and readjustments as a result of their compulsory contact with the vigorous, selfish, and mercantile nations of the West. . . ." This discerning and scholarly approach, which is characteristic of Morse's decades of research and acquisition as Director of the Peabody Museum of Salem, represents a significant change from that earlier attitude which motivated his pioneer predecessors in Salem, whose central interest was in unfamiliar natural forms from distant places and exotic objects produced by foreign cultures. Thus, from 1799, the time of the founding of the East India Marine Society (the genesis of the present museum) up until the decade following the Civil War, the chief acquisitive activities carried out on behalf of the institution reveal a consistent preoccupation with collecting specimens and objects from remote lands because of their strange and unusual character. The essential rationale of this attitude is stated in the original charter of the East India Marine Society, where the members are encouraged to collect "natural and artificial curiosities, particularly such as are to be found beyond Cape of Good Hope or Cape Horn. . . ." This commendable and farsighted curiosity about the unusual natural forms and strange cultures of distant, romantic climes represents one current of the initial phase in that historical process that led to the systematic development of the modern disciplines of the Natural Sciences, and to those other humanistic branches that focus on man's history and development, Ethnology and Archaeology. Chronologically, Morse's own lifetime spans this momentous period, in which scholarly disciplines evolve, become philosophically defined, and each gains its own investigative authority and momentum. One reflection of this process is Morse's acquaintance with Franz Boas, the "Father of American Anthropology," who first travelled to Salem on his return from his initial trip to study the Northwest Coast Indians in 1897. Boas was drawn to the museum because of its valuable ethnological materials, which he diligently photographed and sketched, but his first visit also had a more prosaic motive, for he came to seek Morse's advice on the possibilities of employment in the United States.

The scholarly investigation and systematic collecting of ethnological materials had only evolved into a scientific discipline in the last decades of the nineteenth century, and it was Morse who elevated the acquisition and study of such materials at Salem to a new disciplinary level that reflected both his awareness of the growth of literature and research on the subject, and his concern for traditional cultures around the world that were being undermined by the insidious influence of Westernization. Morse felt a deep sense of dedication and commitment to this work, and the rich and varied ethnological materials that today distinguish the Peabody Museum's collections, particularly those from the cultures of East Asia, attest to his industry and the continuing influence of his example to the present day.

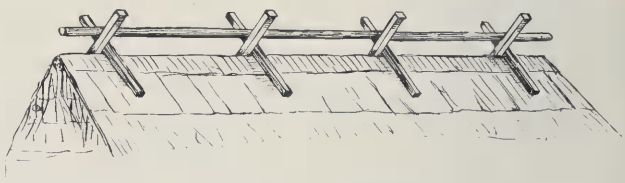
It was during Morse's years of residence in Japan that the first ominous signs that traditional Japanese techniques and craftsmanship were beginning to decline became apparent, and the tendency to indiscriminately ape Western models began to gain momentum. Morse, as an evolutionist, not only recognized the inevitability of change in all civilizations with the passing of time, but enthusiastically approved of certain Western contributions, ". . . such as steam, electricity and modern methods of study and research." However, at the same time that he optimistically supported the introduction of certain aspects of Western technology and thought

(an attitude which sets him apart from the pessimistic views of certain other early Japanophiles, such as Lafcadio Hearn), his awareness that these new factors would accelerate change only served to heighten his own sense of the urgency for studying Japan's traditional creative forms and working to preserve them in the best possible manner.

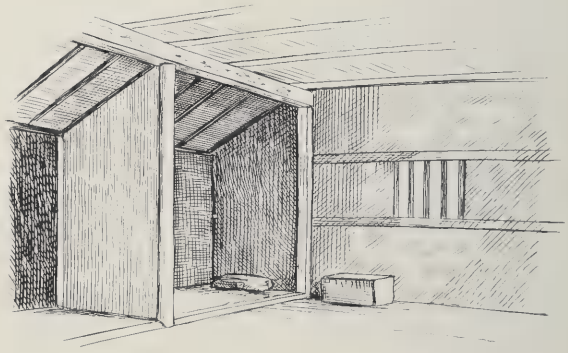
Morse's enthusiasm for traditional Japanese domestic architecture grew out of his fundamental interest in the Japanese people, and their behavior, customs, and ways of life. For this reason, *Japanese Homes and Their Surroundings* focuses not only on architectural features and details, but also on all the objects and artifacts of daily use that contributed to the functional and aesthetic unity of the Japanese home. Morse is, for his time, unique in his admiration for these humble yet lively utilitarian pieces, works which we would categorize today as "folk art," and his interest in this area anticipates the rise of the folk art movement in Japan under Yanagi Soetsu by roughly four decades.

At the time when Morse assembled his data on domestic dwellings in Japan, there was still little concrete evidence of any sort to indicate what form the prototypical structure of ancient times had taken. However, there were isolated literary references in works like the recently-translated *Kojiki* (the "Record of Ancient Matters," the oldest Japanese chronicle, completed in 712) that provided some clues. Morse conceptualized that it was a structure with its support posts driven into the ground, its entire framework lashed together with fiber cordage, and a crude earth floor with a fireplace in its center. Subsequent archaeological investigations have generally borne out this thesis. Morse, searching for prototypical features, noted that *"In the ancient Japanese Rituals, Mr. Satow finds that the rafters projected upward beyond the ridge-pole of the roof crossing each other,—as is seen in the roofs of modern Shinto temples. Survivals of these crossing rafters are seen in the modern Japanese dwelling . . . (No. 61). A precisely similar feature is seen on the roofs of houses along the river approaching Saigon, and on the road leading from Saigon to Cholon, in Annam (No. 62)."* He goes further in also suggesting a southern origin for the Japanese alcove known as a *"Tokonoma"* (literally "place for sleeping" (see No. 64)), noting: ". . . one might see the prototype of this feature in the Malay house. In the Malay villages near Singapore, one may see not only a slightly raised place for the bed exclusively, but also a narrow partition jutting out from the side of the wall, not unlike that which separates the *tokonoma* from its companion recess (No. 63)." After describing the similarity of the Okinawan house to the Japanese, and eliminating the

No. 61 Old Farm-house in Kabutoyama
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*



No. 62 Ridge of Roof in Cholon, Annam
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

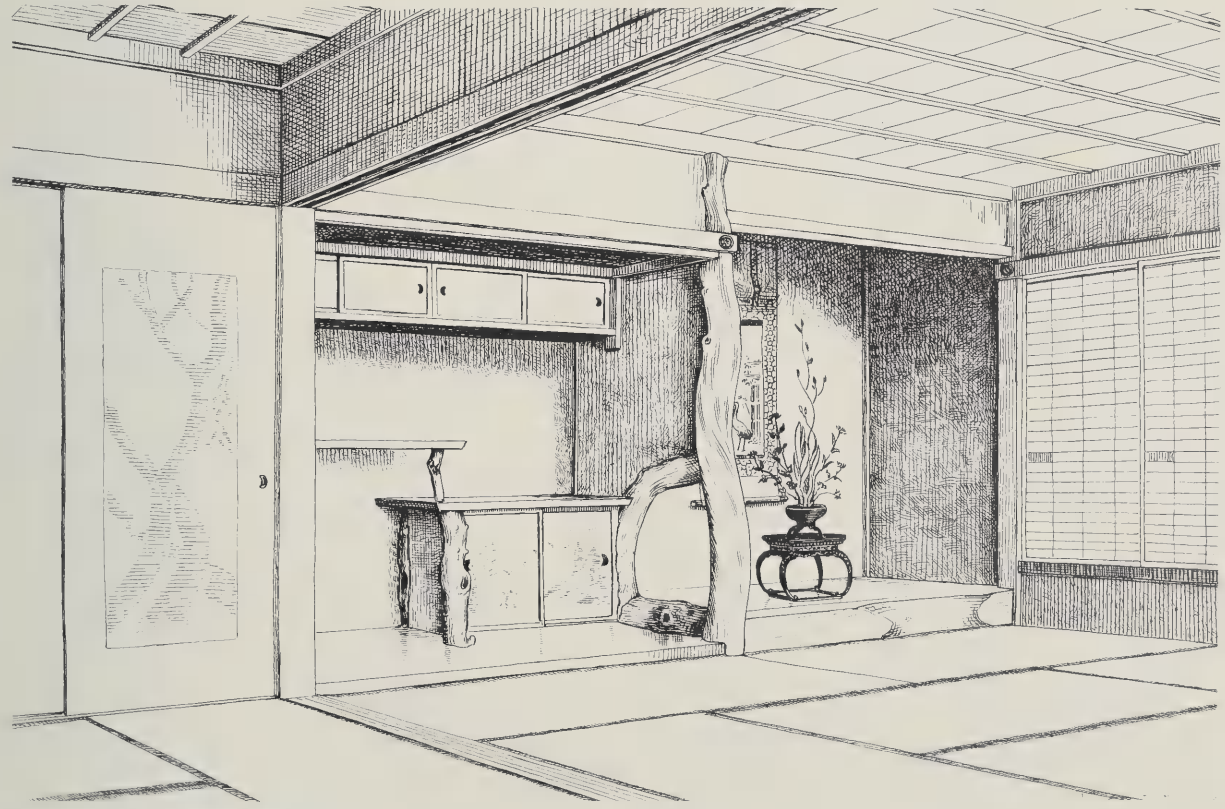


No. 63 Interior of Malay House, Showing Bed-place. Singapore
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

Korean and Chinese houses as possible prototypes, Morse concludes that, ". . . certain important resemblances must be sought for among the southern nations of Annam, Cochin China, and particularly those of the Malay peninsula." Although conclusive proof of this influence remains to be shown, research in a variety of disciplines in the succeeding decades has only served to buttress Morse's thesis, for it is clear that a significant part of Japan's ancient cultural affiliations are with the south.

Morse begins his description of the contemporary Japanese house by contrasting it with American houses of the period. He comments: *"An American finds it difficult to consider such a structure as a dwelling, when so many features are absent that go to make up a dwelling at home,—no doors or windows such as he had been familiar with; no attic or cellar; no chimneys, and within no fireplace . . . or mantle; no permanently enclosed room, and as far as furniture, no beds or table, chairs or similar articles. . . ."* The lack of permanent walls on at least two exterior sides and few permanent interior partitions completes the contrast. In the Japanese house, interior partitions consist of sliding screens set in grooves demarking the rooms but which may be entirely removed allowing one to combine several small rooms into one larger one. The outside screens, or *shoji,* are covered with white paper which allows light to diffuse through the interior. Thick woven rush mats (*"tatami"*) serve as the floor, and the rooms, which are square or rectangular, "are made with absolute reference to the number of mats they contain." The formal alcove is generally incorporated only into the main reception room or other special chambers. A partition generally separates the alcove in the reception room into two bays, the nearest to the veranda being called the *"tokonoma."* In it, a painting or piece of calligraphy is usually hung, together with a flower arrangement or other decorative objects on its slightly raised platform (No. 64).

In city houses the kitchen is often located in a lateral extension on one side or at the corner of the house, while in rural practice it is more frequently incorporated

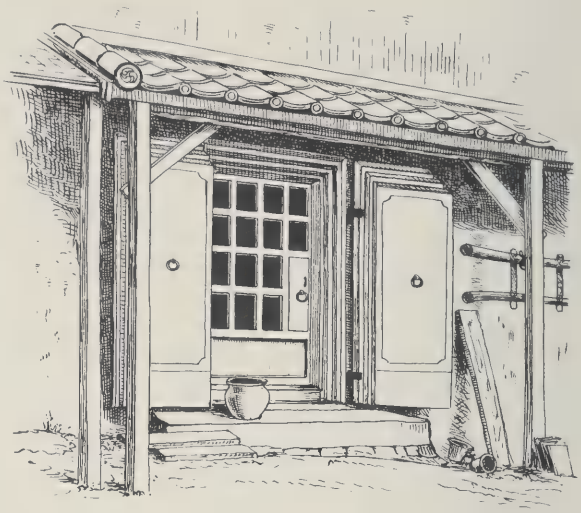


No. 64 Guest-room in Hachi-ishi
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

under the main roof (see No. 31). The exterior side of the house facing the street is generally more austere than the side facing the garden. By and large, country houses, particularly those of some age, tend to be more massive and substantially built than domestic architecture in the city, and their ponderous thatched roofs and elaborate ridge embellishments are dramatic and handsome for their mass and lively details.

Morse observes admiringly: "within these plain and unpretentious houses are often to be seen marvels of exquisite carving and the perfection of cabinet work; and surprise follows surprise as one becomes more fully acquainted with the interior finish of these curious and remarkable dwellings." He was surpised at the simplicity, on occasion even the rude or primitive quality, of the tools used by Japanese carpenters and other artisans who worked with wood, which stood in sharp contrast to the "elaborate machine made implements" used by American carpenters. Struck by this difference in the implements of the two cultures, Morse was "forced to the conviction that . . . modern appliances count as nothing unless accompanied with a moiety of brains and some little taste and wit," a prophetic statement as relevant today as when it was made. Moreover, he was deeply impressed by the fact that even in rural areas away from large cities there was a ready supply of accomplished workmen capable of producing fine architectural details and cabinetry, and he observes, "throughout the breadth and length of the land of thirty-six million people men capable of artistic work, and people capable of appreciating such work, abound."

He admired the simplicity and order that characterized the interior of Japanese homes, and the "absence of so many things that with us clutter the closets, or make squirrel-nests of the attic." The reason for this being that objects are kept in small cupboards or beneath the floor or stairs and in many cases are in turn stored in boxes or in chests of drawers similar to a bureau. Wealthy individuals had specially constructed fireproof buildings called *kura* which were used to store and protect their valuables. *Kura* were also frequently constructed behind stores, but were characteristically smaller in size. Large *kura* were one or two stories high with a few small windows and a single door (No. 64a), all of which were fitted with thick, heavy shutters. The walls of these structures were about two feet thick, composed of layers of mud plastered onto a framework composed of beams, bamboo and coarse-fibered rope.



No. 64a Door to Mr. Ninagawa's Kura
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

Successive layers of mud were applied, and up to two years were required for completion. The final mud coat was sealed with black and white plaster, which was arranged in strong contrasting patterns conspicuous for their visual vitality. In the event of fire, the windows and door were closed and sealed with a layer of mud, and candles were lit in the interior to burn off the oxygen.

Although *kura* generally survived a conflagration, this was not true of the house or shop itself, for the wood and paper used in their construction made the survival of such structures highly unlikely. Large cities were particularly subject to destructive fires, and Edo, one of the most populous cities in the world, was more or less leveled in cataclysmic tragedies in 1601, 1657, 1772 and 1806. At the same time smaller, localized fires are estimated to have consumed an area equivalent to that of the entire city every thirty years. Catastrophic fires were, of course, common in American cities as well during this period, for the wooden houses, with their open fireplaces and fragile oil or kerosene lamps, caught fire with alarming frequency. Fires were a subject of apprehension and interest for Morse throughout his life, and he had several firsthand experiences with them. The earliest occurred when he was only nine, when a street of houses in Portland, including the one in which the Morse family was living, was burned to the ground. The second took place in 1866, when a large part of Portland was leveled. On this occasion the quarters of the Portland Society of Natural History were destroyed, but not before Morse had gathered all the portable

specimens, documents and books together, loaded them onto the long benches in the lecture hall, and enlisted the help of a number of volunteers to carry them to safety. Morse is said to have been the last man out of the flaming building, heroically struggling with the heavy framed portrait of the great naturalist Humboldt which had been given to the Society by Henry Wadsworth Longfellow. A third fire, the great conflagration of Salem in 1914, advanced to within four blocks of Morse's home, and only the timely assistance of firefighting crews with modern equipment and a fortunate shift in the direction of the wind saved Morse's neighborhood.

Morse was already an inveterate fire buff as a boy, and he remained so for the rest of his life. His earliest published comments on the subject appear in a brief article in the *Portland Transcript* in 1866, entitled "The Attractions of Fire." Five years later, another article appeared, this time in *Our Boys and Girls*, a periodical devoted to children's entertainments. Entitled "Playing Fire," it is devoted primarily to the game of playing fire, which had been one of Morse's childhood pleasures, and involved the actual construction of miniature models, which were set on fire. Extinguishing the blaze was accomplished by squirting water through a quill, or utilizing a model water-pumping apparatus that was not fundamentally different in principle from the examples he found in use in Japan some years later. During his period of residence in Tokyo (where a traditional euphemism for conflagrations was *"Edo no hana,"* "Flowers of Edo"), he had the opportunity to observe a number of local fires. He notes in *Japan Day by Day: "The other night I ran and walked nearly three miles to a fire on the outskirts of Tokyo toward the west and arrived there in time to see the last house catch fire and burn up. It was a remarkable and brilliant sight. The fire burned a row of large houses with heavy thatched roofs of straw, and as the wind was blowing a gale great masses of the thatched roof floated away in the air, resembling clouds of golden threads, and when the roof finally fell in the shower of sparks that drifted away was like a storm of golden snow. It was amazing to see how rapidly the houses melted away as soon as the fire got inside. I again witnessed the bravery and heat endurance of the firemen. At a distance of at least three hundred feet from one building the heat was so intense that it was impossible to look at the fire except through the openings between my fingers; yet the firemen were within ten feet of the blaze, and only retreated when their clothing was actually in flames, and even this condition they did not seem to notice until streams of water were directed on them."* The fire-fighting methods fascinated him: *"Of the many extraordinary sights I have thus far seen in Japan, a Japanese fire company in action at a fire goes beyond them all. The engine itself is not over two and a half feet long; a stout wooden box with no wheels, and so light that two men can pick it up and carry it on their shoulders for miles, using the long beam, by which they pump it up and down, as a carrying stick."* The fire companies were private groups, each with their own standard

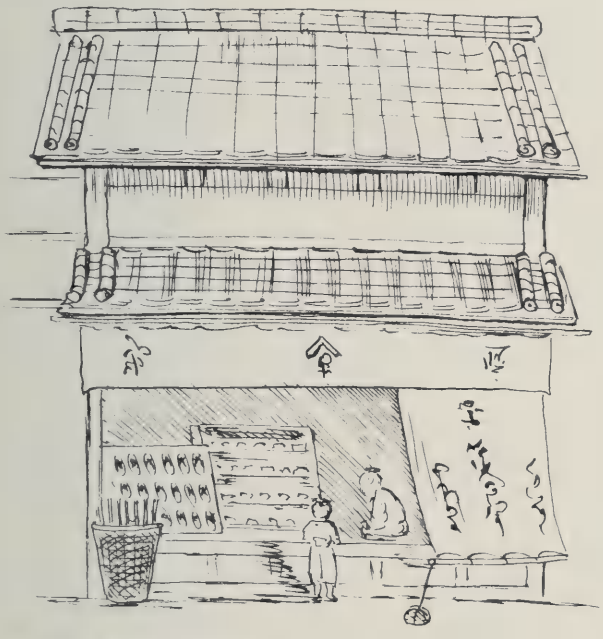
No. 66 A Company of Firemen in Action
Sketch from Japan Day by Day, *E. S. Morse*

bearers who carried large heraldic devices on stout poles identifying the company (No. 65), and who took positions on the roofs on or as near as possible to the fire so that they might be identified and establish their claim to any reward that might be forthcoming as a result of their success (No. 66). The firemen wore padded garments and the water pumps functioned more as a device for wetting the firefighters down than actually dousing the blaze. It was the primary job of the firemen to dismantle the burning structures as rapidly as possible in order to prevent the fire from spreading. Long hooks were used for this purpose to tear down the walls and roofs, collapsing the structure and removing it from the path of the fire. On more than one occasion, Morse felt a compulsive desire

No. 65 Company of Firemen with Ceremonial Standards, ca. 1880
Photographic Archives, Peabody Museum of Salem

to assist in fighting a blaze. Once he seized a long hook to help in tearing down a stubborn balcony. As he rushed into the conflagration, however, his ardor was promptly dampened when a "pipeman" doused him down with a stream of water, and he only succeeded in tearing his coat and scratching his hands.

On returning from one such fire late at night Morse noticed that the neighborhood shops had remained open in the "hopes of catching a little trade." These small, enterprising establishments, with their fascinating varieties of goods, services and foodstuffs, were a source of continual interest for Morse, for they provided instructive insights into Japan's culture, and the tastes and proclivities of her people. He notes: "Trade and barter seem to be the exclusive occupation of the larger part of the population, and most of the shops have rooms in the rear which are the dwelling places." These shops were open to the street (No. 67), *"and as one stops to barter he finds himself rudely looking beyond the stock in trade to the family at supper, or going through their rounds of domestic work." "In some respects they remind you of an open*



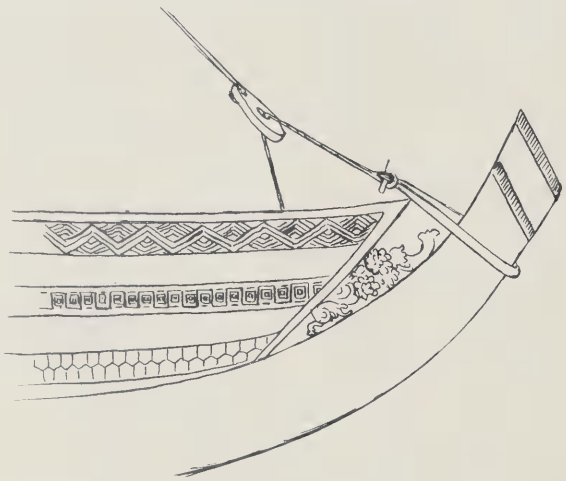
No. 67 A Footwear Shop
Sketch from Japan Day by Day, *E. S. Morse*

shed with a floor raised from the ground, on the edge of which you sit. The goods . . . are arranged on a series of low, step-like shelves, so near that one can reach the objects from where he sits, and beyond, the family in a room back are eating, reading or sleeping, and if the shop deals in manufactured objects the room behind is devoted to the making of fans, candy, toys or whatever may be the articles sold." "The devices for the display of objects in the shops are often simple and interesting. Thus a fan shop had a rack made of a long piece of bamboo with openings cut between the joints and into these places the fans were inserted. A similar holder is found in the kitchen to hold wooden spoons, spatulas, skewers, etc." "It is a never ending source of enjoyment just to walk along the street of shops—one continuous stretch for miles of shops with a frontage of 15 feet, or less, and only ten feet deep . . . and yet every conceivable trade is carried on limited to those dimensions: lantern makers, confectioners, barrel makers, carpenters, joiners, blacksmiths, and all open wide to the street . . . and little or no demarcation between the artist and the artisan."

Every shop was equipped with its own distinctive shop sign, which was either set up in front or, more frequently, suspended from a beam underneath the front eaves, and designed so that it attracted the attention of people coming from either direction. Although shop signs had a long tradition in Japanese history, it was during the Edo Period (1615-1867), with its remarkable growth in commercial activities at the hands of the merchant class, that the finest shop signs were produced. Earlier, signs were smaller in size and simpler in conception, but by the middle of the 17th century examples of impressive size, often decorated elaborately with gold and silver leaf, lacquer, mother-of-pearl inlay, and with rich metal fittings had begun to make their appearance. Although the government periodically issued sumptuary regulations designed to discourage excesses among the lower classes (merchants occupied the lowest level of society according to the traditional division into four stratified classes), and these included orders that shop signs should be simple and unembellished, these carping admonitions were ignored more often than they were obeyed, and the production of new and inventive shop signs continued. Signs frequently incorporated in their forms pictorial or sculptural representations of the product handled by the establishment, and these were decorated in appropriate colors with calligraphic inscriptions. As a result of Morse's enthusiastic interest in this area, the Peabody Museum of Salem today houses an extensive collection of Japanese shop signs that is unmatched for its diversity and quality.

Considering the circumstances of his life and his scholarly interests, it comes as no surprise that Edward Sylvester Morse felt a

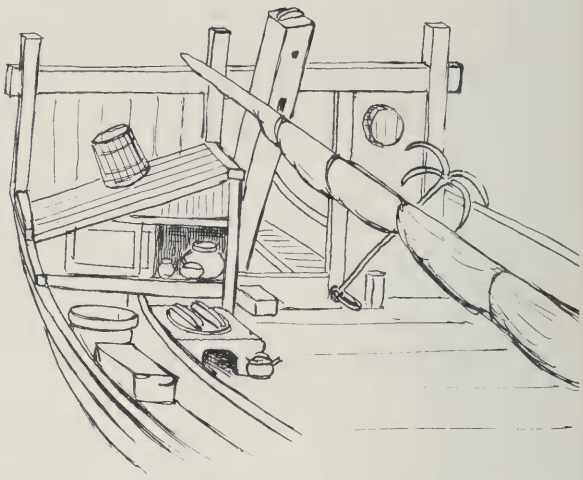
strong affinity for the sea and those associated with it. Raised in Portland, Maine and a resident of Salem, Massachusetts for most of his life, knowledge of maritime matters came to him naturally through direct experience. He was at home in small boats, and his scientific preoccupation with shellfish made investigations at the seashore perennial activities for him. The Peabody Museum has several small but precise sketches of sailboats and fishing craft done when he was still a young man in Portland that attest to his early enthusiasm for boats, and the carefully observed depictions of Japanese craft that appear in *Japan Day by Day* show that this interest had not diminished two decades later. Morse was fortunate in that he was able to study traditional Japanese sailing craft at a time before they became largely supplanted by more efficient designs adopted from the West. He was able to travel on several occasions on such vessels, and during a dredging expedition organized for the University he made sketches of the details of one interesting small craft. He shows the delicate bow carving (No. 68) "deeply cut and colored green,"



No. 68 Bow of a Small Boat
Sketch from Japan Day by Day, *E. S. Morse*

but notes that "beyond this there is not a touch of paint or stain on the whole vessel. The woodwork is of immaculate cleanliness and one always sees some of the crew scrubbing, . . . among the details is a little charcoal stove or hibachi for cooking and a little cupboard with sliding doors which represents the cook's galley (No. 69)."

Japan's two and a half centuries of self-imposed isolation from the outside world had inhibited the progress of ship design and building. As a consequence, traditional



No. 69 Section of a Small Boat Showing Storage and Cooking Facilities
Sketch from Japan Day by Day, *E. S. Morse*

Japanese sailing craft tended to be unseaworthy and incapable of sailing upwind. Their large square sails were made from vertical strips of cotton 76 cms. in width. In large vessels up to 25 of these strips were sewn together to construct a sail. The vessels had only one mast and a removable rudder which could be lifted up in shallow bays or rivers (No. 70). The largest of these transport ships were known as *"Sengoku-bune"* ("Thousand *koku* ships"), one *koku* of rice being the equivalent of about five bushels. It was only toward the end of the Edo period that the imperative needs of national defense compelled Japanese ship builders to adopt Western methods of shipbuilding, and within the space of half a century, traditional large Japanese sailing ships had been almost entirely supplanted by Western designs, and were seldom seen.

No. 70 "A Japanese Junk at Kobe"
Sketch from Japan Day by Day, *E. S. Morse*

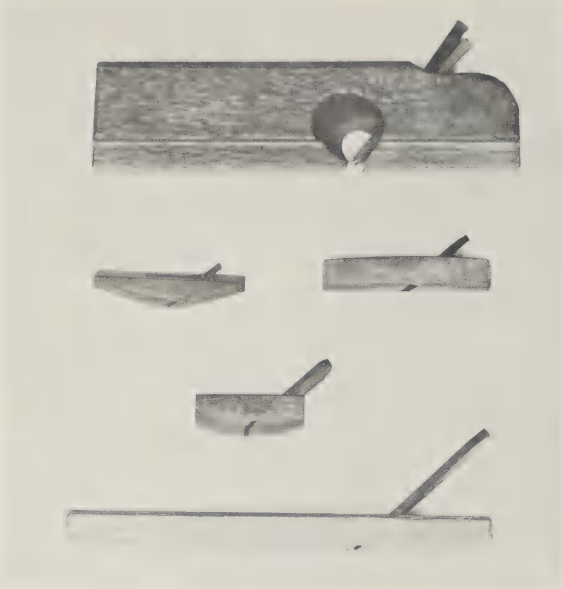
Morse was also interested in the natural products of the sea, and he was pleased to observe that the Japanese efficiently utilized almost all the creatures and plants that flourished in the waters surrounding their island for food or other purposes. He made visits to Japanese fishing villages (No. 71) and

No. 71 "Fishermen's Houses at Enoshima" Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

his delight in technological matters is apparent in his fascination with the details of the equipment and methods used by Japanese fishermen. Thus he observes: "Thousands of fishermen in their little boats and men and boys on the rocks catch all kinds of fish and as in many other matters each province in Japan has its special type of fishhooks. For trolling, a wooden fish is used, with a metal keel to keep it upright and a double row of hooks in the tail." As we might expect, he systematically collected many examples of such materials, and a number, such as those depicted in (No. 99) and (No. 100), appear in the exhibition.

No. 72 Japanese Carpenters at Work Preparing Posts and Beams, ca. 1880
Photographic Archives, Peabody Museum of Salem

No. 73 *Carpenter's Ink-line Container and Reel* (sumitsubo)
Red lacquer over wood, carved with masks of Okame and Karashishi
("Chinese Lion")
Length 22.5 cms.
Gift of Dr. C. G. Weld, 1904



No. 74 *Assorted Carpenter's Planes*
Top: Rabbet Plane ("misokana"), length 26 cms.
Middle: Three Curved Planes
Bottom: Inside Plane ("manikana"), length 24.7 cms.

Top and bottom examples: Gift of the Educational Museum of Tokyo, 1883
Middle: Gift of Miss Laura Revere Little in Memory of Mr. and Mrs. James L. Little, 1943.
Used by Japanese carpenters in construction work at World's Columbian Exposition, 1893.

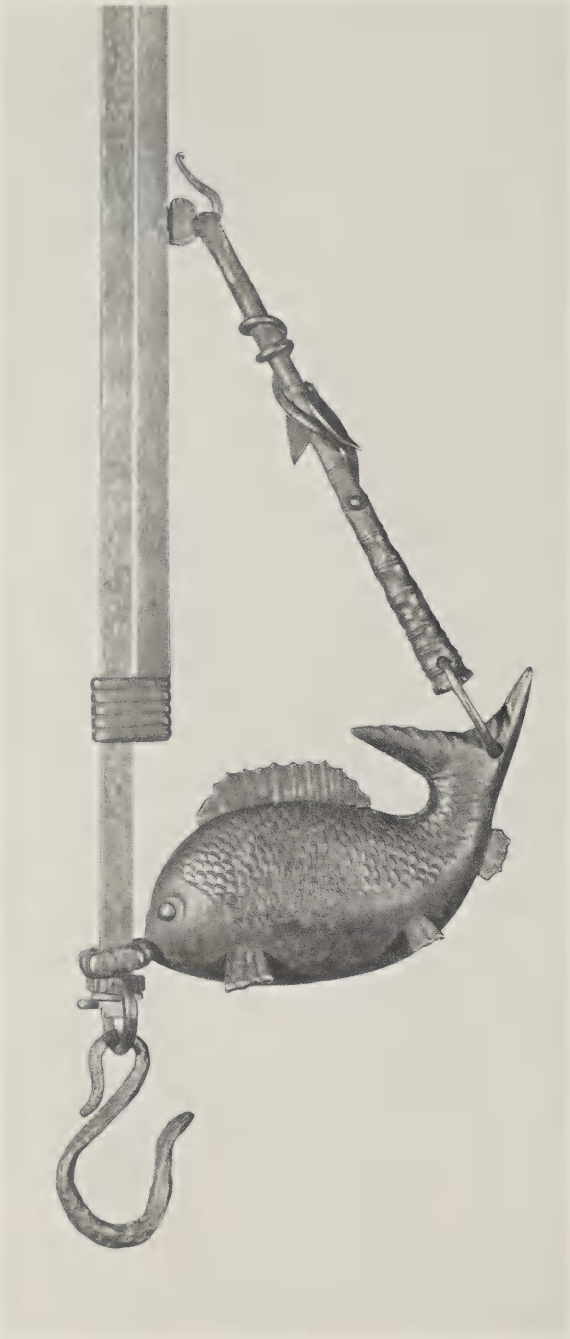
No. 75 *Sawyers Sawing Planks from a Solid Log, ca. 1880*
Photographic Archives, Peabody Museum of Salem

No. 76 Broad Saw
Length 75 cms.
Gift of Miss Laura Revere Little in Memory of Mr. and Mrs. James L. Little, 1943. Used by Japanese carpenters in construction work at World's Columbian Exposition, 1893.

No. 77 Cooper's Tools
Top: Ripsaw ("gagarinoko"), length 65 cms.
Middle: Holesaw ("hikimawashinoko"), length 43.6 cms.
Middle Right: Compass ("bunmawashi"), length 30 cms.
Bottom: "Two-foot" measure ("ni-shakudo"), length 60.5 cms.
Gift of the Educational Museum of Tokyo, 1833.

No. 78 Shingler's Bamboo-nail-making Kit with Basket and Nails
Wicker nail basket with string and toggle, length 15 cms.
Collected by E. S. Morse, 1882. Morse Bequest
Knife, nails in preliminary stages and finished examples
Gift of Mr. S. Tejima, 1886

No. 79 *Two Candleholders and an Oil Lamp*
Left: Iron candleholder with silver inlay, height 14 cms.
Estate of Mrs. Arthur T. Cabot, 1945
Middle: Ceramic oil lamp, green glaze, from Mambashira, Iga, height 13.2 cms.
Collected by E. S. Morse, Gift of E. M. Raymond, 1907
Right: Ceramic candleholder, from Akatsumura, Owari, grey and brown glaze, height 25.5 cms.
Gift of E. M. Raymond, 1907

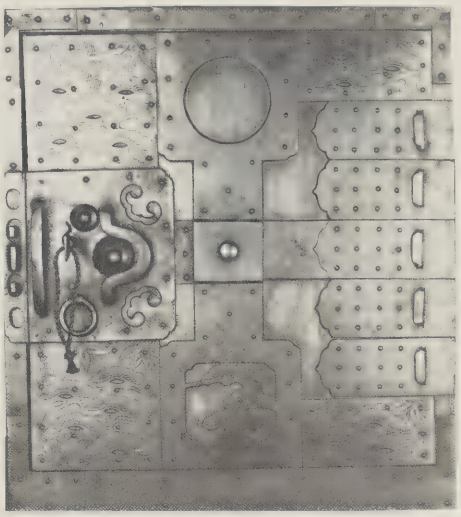


No. 80 Jizai *(adjustable pot hanger)*
Forged iron, length 172.2 cms.
Gift of Dr. C. G. Weld, 1909

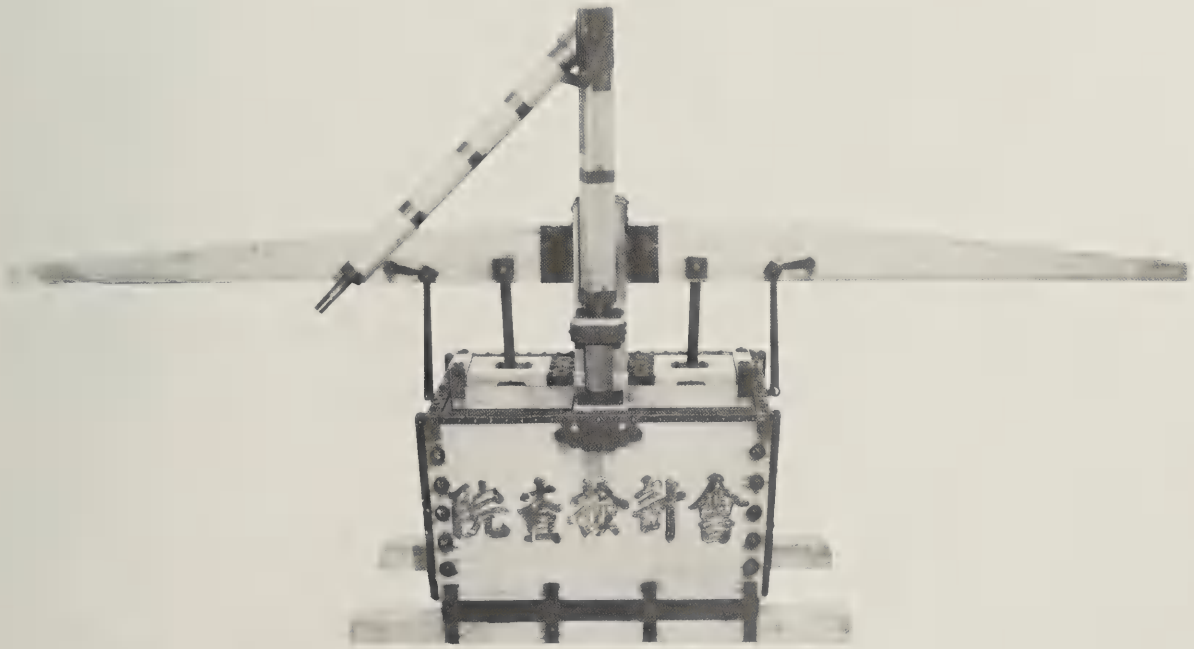
No. 81 *Wicker Charcoal Basket*
Chevron weave, lined with coated paper, diameter 33 cms.

No. 82 *Woven Cane Basket for Flower Arrangements*
Height 27.2 cms.
Gift of Dr. C. G. Weld

No. 83 Bamboo Lunch Basket
Length 17.8 cms.
Gift of Miss M. W. Brooks, 1898



No. 84 Door to a Strongbox
Iron lock and decorative sheet-iron segments
Gift of William C. Endicott, 1911



No. 85 Firemen's Water Pump
Wood tank, iron fastenings
Length of pumping handle 238 cms.
Gift of Dr. C. G. Weld, 1908

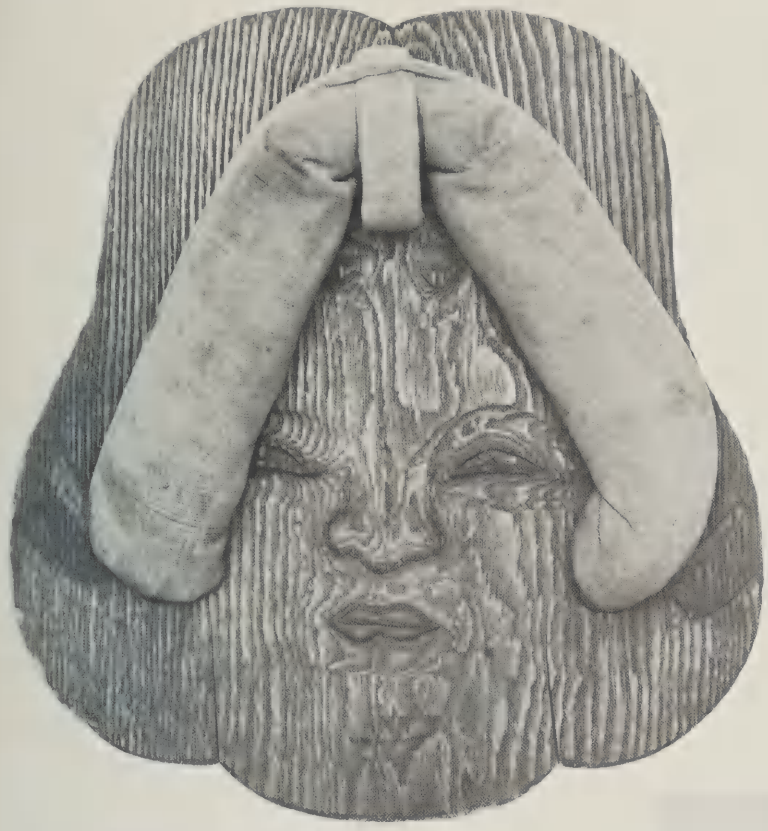
No. 86 Fireman's Coat (opened to show interior decoration)
Cotton, dyed and painted, length 103 cms.
Gift of Dr. C. G. Weld, 1908

No. 87 *Fireman's Coat*
Leather, dyed brown-yellow and bearing stenciled design of waves and crest, length 95 cms.
Gift of E. S. Morse, 1904

No. 88 *Fireman's Dress Helmet and Hook*
Helmet: copper, lacquered, with shell inlay, diameter 13 cms.
Gift of Albert B. Fowler, 1914
Hook: copper, lacquered, with shell inlay, length 58 cms.
Gift of E. S. Morse

No. 89 "Apron" Worn by a Fireman on Ceremonial Occasions
Indigo-dyed cotton with white silk appliqué panels on front; gold brocade and supporting lining of woven fiber on back.
Length 72 cms.
Billings Fund, 1913

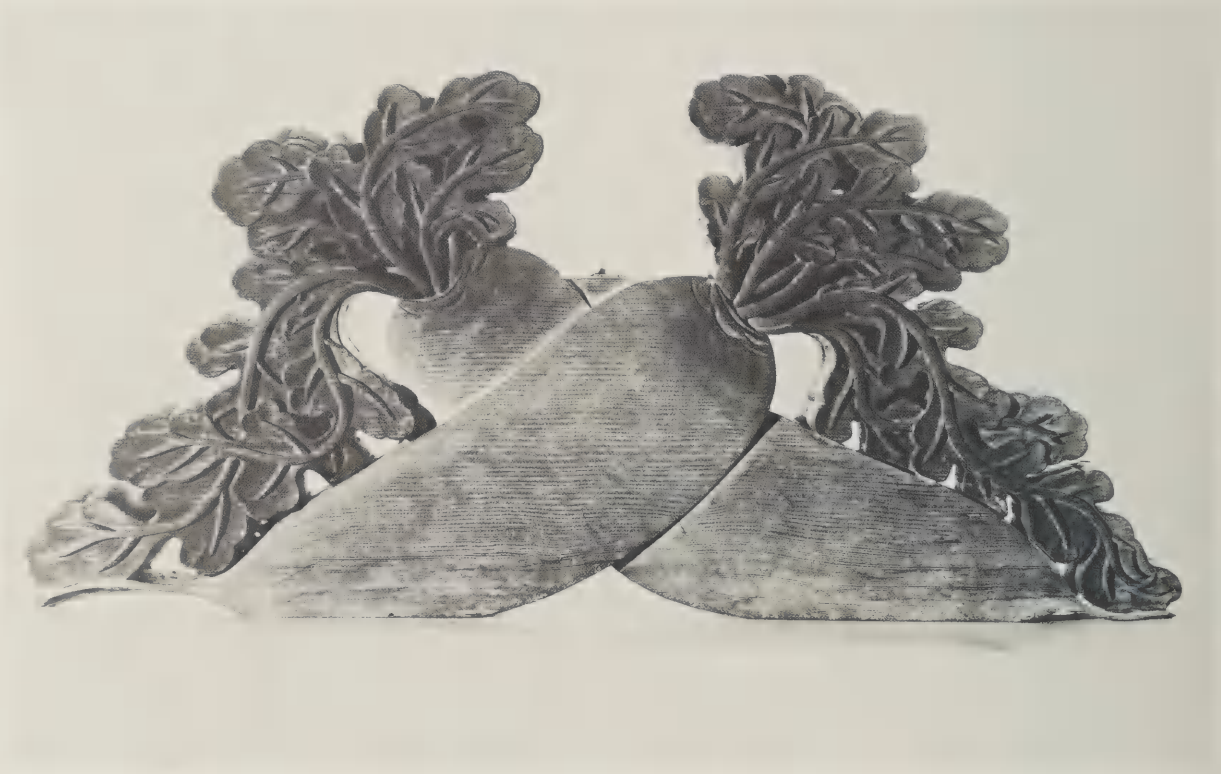
No. 90 Model of a Shop Selling Household Ceramics
Wood structure, cloth doll, miniature ceramic pieces
Height 29 cms.
Billings Fund, 1908



No. 91 Shop Sign for a Clog Maker
Contour of the clog and carved details represent "Okame", a popular folk deity. Wood and cotton, height 28.5 cms. Purchased from Yamanaka and Co., and given by "Six Friends" (E. S. Morse, W. S. Bigelow, P. Lowell, C. S. Rea, W. C. Endicott, and R. Osgood; 1916

No. 92 Shop Sign for a Dealer and Manufacturer of Brushes
Bamboo, rice straw, paint and lacquer; length 110 cms.

No. 93 Shop Sign for a Dealer in Cinnabar Ink, Ink Pads and Seals
Wood and lacquer, diameter 46 cms.
Billings Fund, 1932

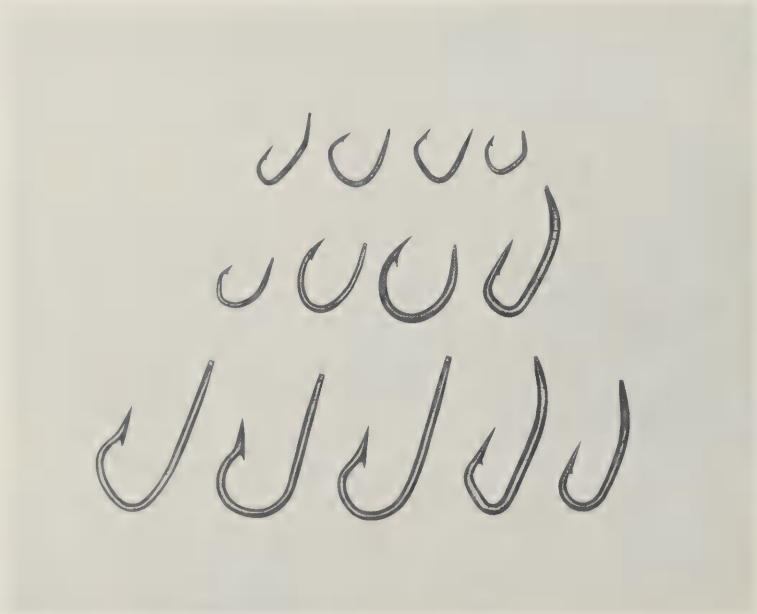


No. 94 Shop Sign for a Greengrocer (two giant Japanese radishes)
Pigment on wood, width 91 cms.
Gift of Dr. C. G. Weld, 1909

No. 95 *Shop Sign for a Dealer in Vinegar and* Shoyu
("Soy Sauce")
Wood, with white pigment and iron fittings
Purchase, 1916

No. 96 *Shop Sign for a Tea Merchant*
In the shape of Mt. Fuji, with phrase "Best Anywhere"
Wood and pigments, width 89 cms.
Gift of "Six Friends" (E. S. Morse, W. S. Bigelow, P. Lowell, C. S. Rea, W. C. Endicott, and R. Osgood, 1916

No. 97 *Shop Sign for a Manufacturer of Baleen Objects*
Whale baleen over a wood frame,
length 62 cms.
Collected by E. S. Morse, gift of
John Robinson, 1916



No. 99 *Tuna Hooks from Various Japanese Provinces.*
E. S. Morse exchanged a collection of
American fishhooks, which were sent to the
Bureau of Agriculture in Tokyo, for an
extensive collection of Japanese fishhooks,
including these, which were previously
exhibited at the World's Columbian
Exposition in 1893.

*No. 98 Model of a Traditional Large Cargo Junk ("*Sengoku-fune*")*
Length 164 cms.
Collected by E. S. Morse, 1899

No. 100 Telescoping Fishing Pole (left), Eel and Fish Trap (center), and Eel Hook (right)
Fishing pole (bamboo), length 56 cms. Collected by E. S. Morse
Eel and fish trap, split bamboo, and eel hook (iron and wood), gifts of the Educational Museum of Tokyo, 1883.

4. Artisans and Artists

Potters and their Crafts—The Arts of Metalworkers—Lacquerers and Lacquerware—Painters and Sculptors

A passage in *Japan Day by Day*, drawn from Morse's journal, gives a lively sense of the enthusiasm that motivated him to eventually assemble the great collections in Salem and Boston that are associated with his name. He remarks to the reader: *"Let him begin to collect, however, and if he is a natural-born collector he will become wild over the tea-jars and other forms of pottery. I have started a little collection and have lately added two pieces (Nos. 101 and 102). One is a vessel for sauce. The pottery is Akatsu, Oribe; the other is a Satsuma teapot. They are at least one hundred and fifty years old, perhaps older. They are really fascinating to handle, and the fun of finding such nuggets in the simplest little bric-a-brac shops is only appreciated by those imbued with the collector's spirit. The collector of bric-a-brac finds Japan a veritable paradise, for wherever he goes he finds second-hand shops, known as* furui doguya, *displaying old objects of every description: pottery, metal and lacquer work, basketry, swords and sword furniture, pictures, etc. In the smallest villages through which one rides one finds some shop of this description with a modest assortment of old things. One cannot help recalling the fact that in our country the second-hand shops in our towns are limited to the sale of second-hand furniture, second-hand books, and second-hand clothing. . . ."*

No. 101 "Vessel for Sauce", Akatsu, Oribe
Sketch from Japan Day by Day, *E. S. Morse*

No. 102 "Satsuma Teapot";
Sketch from Japan Day by Day,
E. S. Morse

We have already noted how Morse's passion for Japanese pottery over the years led him to assemble the great collection which bears his name and is housed in the Museum of Fine Arts, Boston, and to produce the monumental study of its contents. Although the majority of his pieces went to Boston, a substantial number were also given to the Peabody Museum of Salem, and form the nucleus of the smaller, but nevertheless significant collection in this institution.

Morse's mentor in the study of Japanese pottery was the antiquarian Ninagawa Noritane, and Morse regularly acknowledges in his writings his debt of gratitude to Ninagawa for generously sharing his insights and expertise on the subject. Although Ninagawa's death in 1882 made their association a short one, Morse was a diligent student who admired Ninagawa's sober and pragmatic methods for determining the maker, provenance and dating of pottery specimens, and he learned quickly. Ninagawa made his pioneer study on Japanese pottery *"Kwan Ko Dzu Setsu,"* produced over the years 1876-1879, available to Morse, who used it as a foundation for his own research and writings. A delightful painting, done at the request of Ninagawa and sent to Morse in America, attests to the friendship of the two men and their common passion for Japanese pottery

No. 103 Ninagawa Noritane, in Japan, Observing the Morse Family Unpacking Their Pottery Collection in Salem, 1879.
Painting on paper, done at the request of Ninagawa Noritane by Kawabata Gyokushō (1842-1913), 38 x 60.8 cms.
Gift of Mrs. Catherine Whyte, 1977

(No. 103). Painted by the noted artist Kawabata Gyokushō (1842-1913), it shows Ninagawa in Japan, peering intently through a telescope and observing the Morse family happily unpacking their pottery trove back in Salem in 1879.

Morse's travels in Japan made it possible for him to investigate ancient kiln sites and also to visit many of the famous potters of the day, who often provided him not only with pieces but also information on their forebears and artistic traditions. With his growing knowledge and enthusiasm for the subject, Morse was welcomed as a participant in the congenial meetings of pottery devotees who got together to share their insights and match their expertise. He describes one meeting held in January of 1883. *"The other night I was invited to an interesting gathering. Mr. Tanimura, a teacher of cha-no-yu* [the tea ceremony], *has a meeting every month of men who are interested in old Japanese pottery. It is a guessing party, and each one brings a specimen of pottery difficult to identify. These are numbered and recorded in a list by one who does not take part in the guessing contest. The method is rather curious. The party sit around in a circle with candles in the middle, and each one has a lacquer cup with his name written on the bottom. A specimen of pottery, such as a tea-jar, bowl, or incense-box, is passed around, each in turn examines it (No. 104), and then with a brush and India ink records his guess*

No. 104 A Pottery Inspecting Party at the Home of Mr. Tanimura
Sketch from Japan Day by Day, *E. S. Morse*

on the inside of the lacquer cup and places it face downward on the mat. When every one of the party has marked his guess, or opinion, the host records each name and opinion in a book. In this way we examined

a number of old tea-jars, tea-bowls, and the like." He adds somewhat smugly: *"It may be interesting to record that I got the highest number of correct attributions, and it was also gratifying to know that I was not alone when in error. . . . It was interesting to meet such a pleasant party. One was a student, another a doctor, a third was an editor of a daily paper, another was a gentleman of leisure, and the host was a pottery expert. They all expressed their amazement at the quickness of my decisions, as I always put my lacquer cup down first. The others would look at the piece in turn, expressing their emotions in curious sounds, saying it was odd or troublesome, and grunt over it, and at the very last moment write their decisions."*

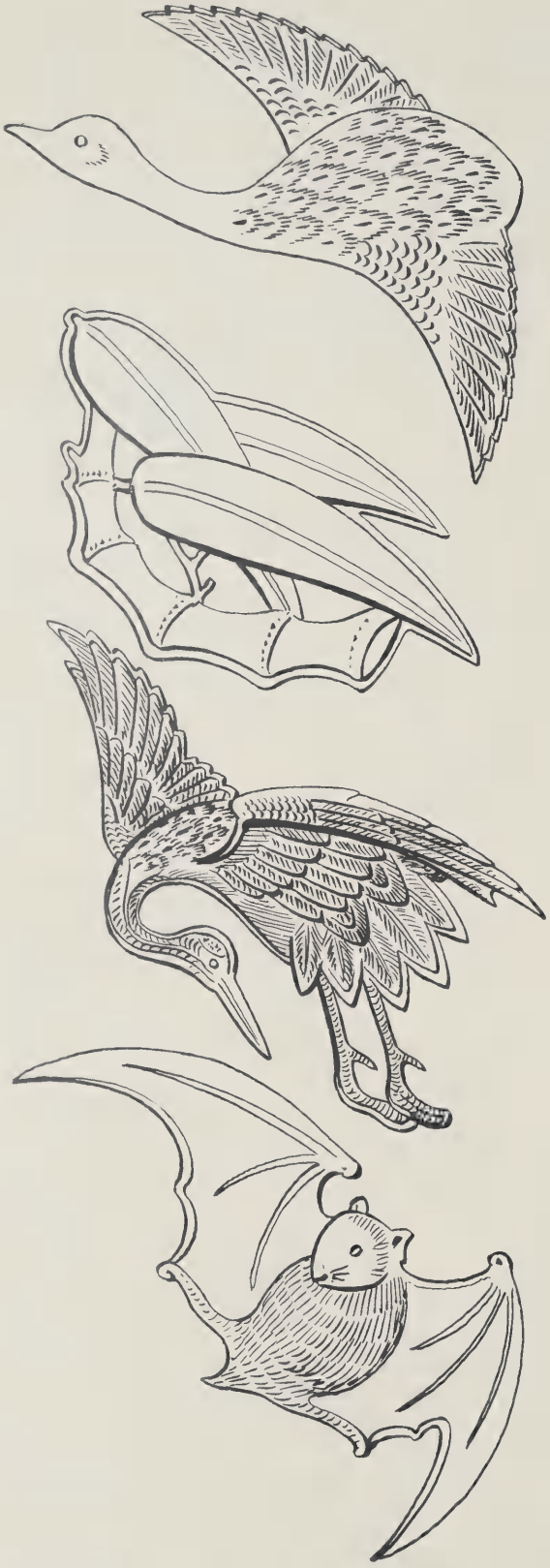
The vast range of products produced by Japanese metalworkers was also a continual source of interest to Morse, and *Japan Day by Day* and *Japanese Homes and Their Surroundings* contain many instructive observations about the nature of their work and skills. Thus he notes the sense of rhythm that is characteristic of many such activities: *"You find that the Japanese workmen hum or sing at their work, and if the work is pounding, stirring with a stick or spoon, or any uniform movement, it is done with an accent and rhythm. These noises may be a series of grunts, or an actual song. The gold-beaters and fish-choppers always beat and chop with a peculiar tempo. . . . The blacksmiths have the hammers of the helpers tuned differently, so that an agreeable series of sounds is made, and when four are pounding in rhythm it sounds like the chime of bells. It is a curious trait in their character to lighten the burden of their labors by some pleasant sound or rhythm." No. 105 ". . . represents a neighborhood blacksmith at work. He sits on the ground, or floor, . . . The bellows consist of a long, square box in which a square piston is moved back and forth by means of a rod and handle; with his left leg the blacksmith blows his bellows by grasping the handle with his foot and moving his leg back and forth, leaving his two hands free for hammering. . . . Sometimes a boy is employed to blow the bellows, and this he does with his hands."*

No. 105 Blacksmith at Work
Sketch from Japan Day by Day, *E. S. Morse*

For Morse, the artistically conceived and technically accomplished crafts of the artisans who produced miniature decorative pieces in metal, such as nail-head covers, drawer-pulls, *hikite* (concave pulls set into sliding screens), and small bronze sculptural objects, were the object of perennial delight and admiration. He took pleasure in producing carefully rendered drawings of many of them, such as the group of nail-head covers in No. 106, which seemed to be inspired by an endless inventory of traditional designs. Often, as in the case of the superb drawer-pull given to the museum by Dr. Charles G. Weld (No. 107), a clever combination of metalworking techniques is complemented by the addition of cloisonné to produce objects of great elegance and beauty.

Dr. Weld concentrated much of his own collecting activities on Japanese arms, arms-fittings and accessories, and armor, and these pieces were included in generous gifts to the Peabody Museum over the years. A number of fine examples, ranging from blades, sword guards and exquisite arrowheads to various kinds of armor designed both for warriors and their mounts are included in the exhibition, and representative specimens also appear in this section of the catalogue.

Among the most accomplished traditional art forms produced in Japan are those created by lacquer specialists, and Morse was, predictably enough, much impressed by the artistic conceptions and superb techniques that many of the lacquer pieces displayed. On one of his visits to the Industrial Exhibition held at Ueno Park in Tokyo in 1877, he notes: *"I went to the Exhibition again this afternoon and realized the comfort it was to walk through the crowds that throng the place without having to hold on to your pocket-book, and to feel that you could leave your umbrella beside a bench and find it there an hour later. . . . I hope to visit the place twice a week to make a study of its art treasures. Today I noticed more particularly the wonderful character of the work in lacquer: the various kinds of lacquer and the effects produced, the overlaying with gold, pearl, and the exquisite taste shown in the subjects selected. . . . On a jet-black lacquer tablet was*



No. 106 *Ornamental Nail-head Covers*
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

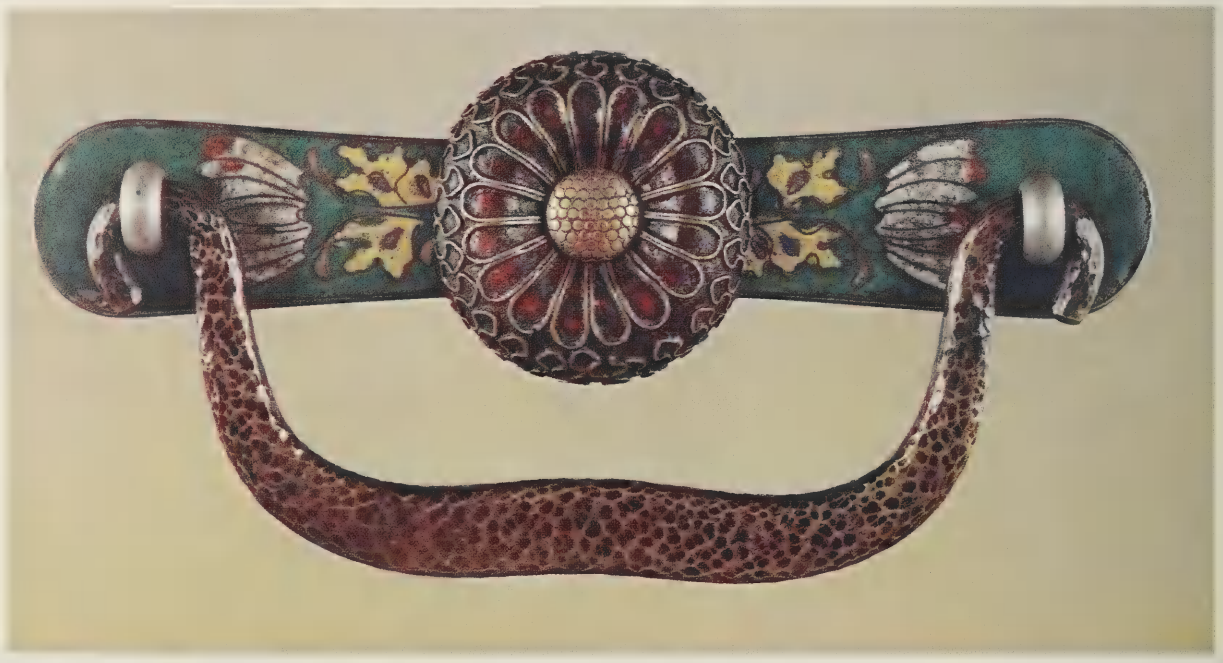
the full moon rising out of the sea. The moon was literally a silver disk, though the reflection in the water was, curiously enough, gold-tinted. . . . Now this tablet appeared perfectly black as one glanced at it hanging on the wall; the jet-black surface represented a dark night; the moon was marvelously rendered and hung low down and was partially obscured. . . . It is the reserve, simplicity, and yet audacity these artists show, that is so wonderful. Who would think of details in black on a black background! . . . It is unthinkable, and yet it is only one of hundreds of things the Japanese delight to do. The tablet represented night and night it was."
Morse's interest in lacquerware is reflected in the extensive collection preserved in the Peabody Museum today. Many of the pieces were collected by Morse himself, but many others came to the museum from others who were inspired by his infectious enthusiasm, men such as Weld and Bigelow. The variety of the museum's lacquered objects may be seen not only in the diversity of techniques and forms, but also in the sizes of objects, which range from a delicate *sake* cup showing a carp swimming upstream, done in red lacquer with gold and silver pigments (No. 109), to the beautifully embellished palanquin once used by a feudal lord (No. 108).

No. 109 Sake *Cup, with Depiction of Carp Swimming Upstream*
Red Lacquer, gold and silver pigments over wood, diameter 8.5 cms.
Gift of Dr. W. S. Bigelow, 1912.

No. 110 A Pair of Sparrows
Kano School, 16th Century, length 81.5 cms.
Gift of Mr. Francis Lee Higginson, Jr., 1963

It does not seem that Morse ever became engrossed in collecting Japanese paintings as his colleagues Dr. Bigelow and Ernest Fenollosa did. Thus, at least on those occasions when he travelled about the country with these gentlemen, he seems to have concentrated his energies primarily on acquiring pottery specimens, apparently content to let the others handle the acquisition of paintings. This division of interests is reflected historically in the fact that Bigelow bequeathed his great collection of Japanese paintings to the Museum of Fine Arts, Boston, and that he also convinced Dr. Charles G. Weld that he should purchase Fenollosa's collection and leave it to that institution. As a result, the Japanese paintings in Salem are small in number and generally undistinguished in quality. There are, nevertheless, a few pieces worthy of note, such as the 16th Century *kakemono* showing two sparrows in a natural setting, done by a member of the Kano School (No. 110), and a small but interesting group of works done by the late master Kawanabe Kyōsai (1831-1889).

Although Morse never became a connoisseur of Japanese paintings, he nevertheless admired the aesthetic role of paintings in Japanese homes, and the rationale which determined their display. *"A Japanese may have a famous collection of pictures, yet these are stowed away in his* kura, *with the exception of the one exposed in the* tokonoma. *If he is a man of taste, he changes the picture from time to time according to the season, the character of his guests, or for special occasions. In one house where I was a guest for a few days the picture was changed every day. A picture may do duty for a few weeks or months, when it is carefully rolled up, stowed away in its silk covering and box, and another one is unrolled. In this way a picture never becomes monotonous. The listless and indifferent way in which an American will often regard his own pictures when showing them to a friend, indicates that his pictures have been so long on his walls that they no longer arouse any attention or delight. It is true, one never wearies in contemplating the work of the great masters; but one should remember that all pictures are not masterpieces, and that by constant exposure the effect of a picture becomes seriously impaired. The way in which pictures with us are crowded on the walls,— many of them of necessity in the worst possible light, or no light at all when the windows are muffled with heavy curtains,— shows that the main interest centres in their embossed gilt frames, which are conspicuous*



No. 107 Ornamental Drawer-pull, 18th Century(?)
Copper and cloisonné, length 17.4 cms.
Gift of Dr. C. G. Weld

in all lights. The principle of constant exposure is certainly wrong; a good picture is all the more enjoyable if it is not forever staring one in the face. Who wants to contemplate a burning tropical sunset on a full stomach, or a drizzling northern mist on an empty one?"

No. 108 Kago *("Palanquin"), 18th-19th Century*
Wood, metal fastenings, black lacquer with gold designs, length of carrying pole 464 cms.

No. 111 Pottery Jar, from Shigaraki, Omi Province, 16th Century (?)
Height 11.9 cms.
Gift of E. S. Morse and Dr. C. G. Weld, 1910

No. 112 Storage Jar, Old Satsuma Ware
Diaper pattern in light and olive brown, height 33.3 cms.
Gift of E. S. Morse

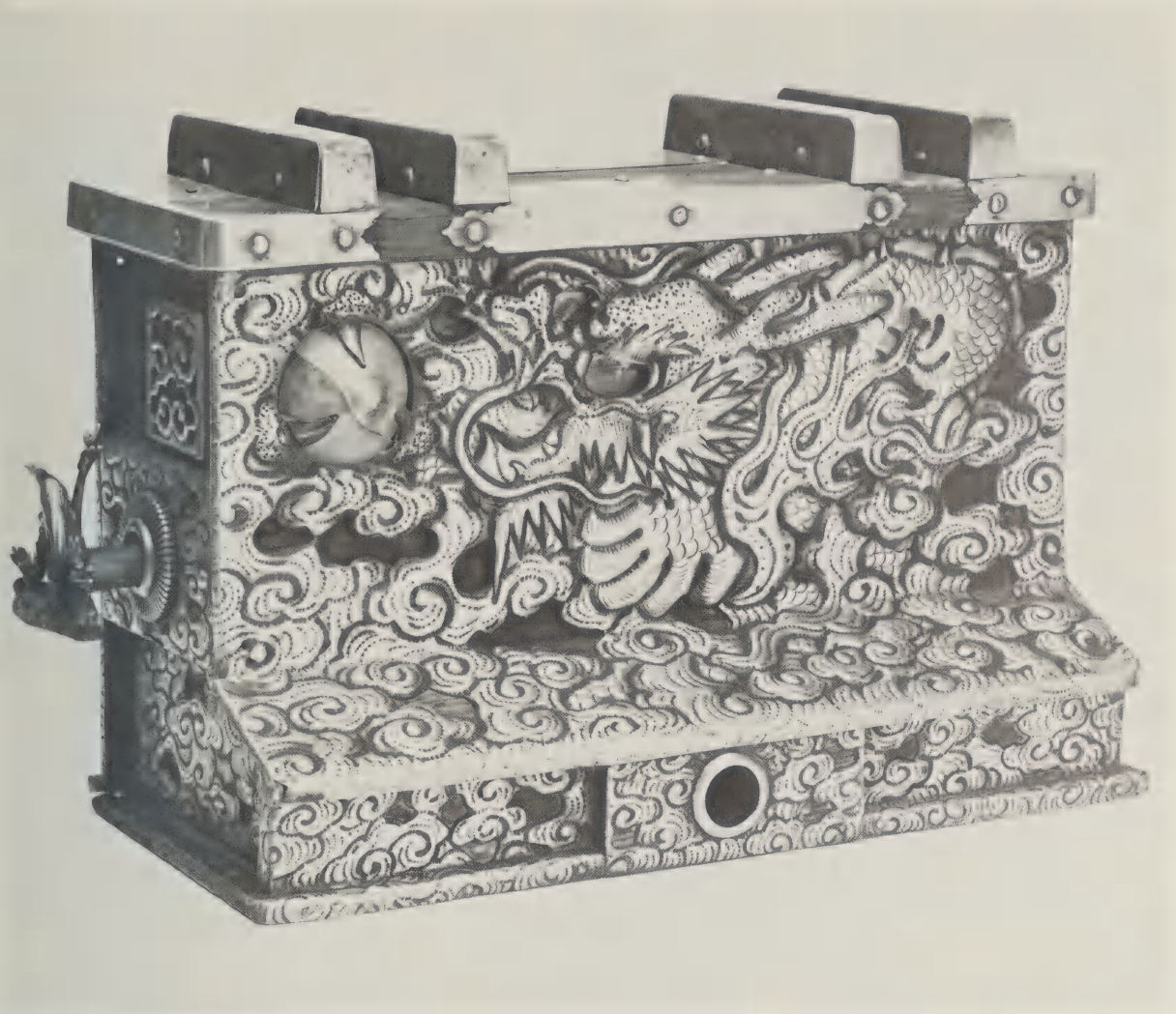
No. 113 Platter with Schematic Map of Japan and Surrounding Countries
Imari ware, porcelain with underglaze blue details, ca. 1850
Diameter 48.5 cms.
Collected by George West, Gift of Essex Institute, 1969

No. 114 Platter with Design of Mandarin Duck, Owari Ware, 19th Century
Diameter 42.5 cms.
Gift of Dr. C. G. Weld

No. 115 Tea Caddies
Left: "Hidasuke" pottery from Bizen Province, 19th Century
Height 8.5 cms.
Gift of Dr. C. G. Weld, 1910
Right: Karatsu pottery from Hizen Province, 17th Century (?)
Height 11 cms.
Gift of Dr. C. G. Weld, 1910

No. 116 Potter's Finishing Wheel
Wood, height 27 cms.
Gift from the Educational Museum of Tokyo, 1883

No. 117 Potter's Tools
Gifts from the potter Rokubei and the Educational Museum of Tokyo, 1883-1904.



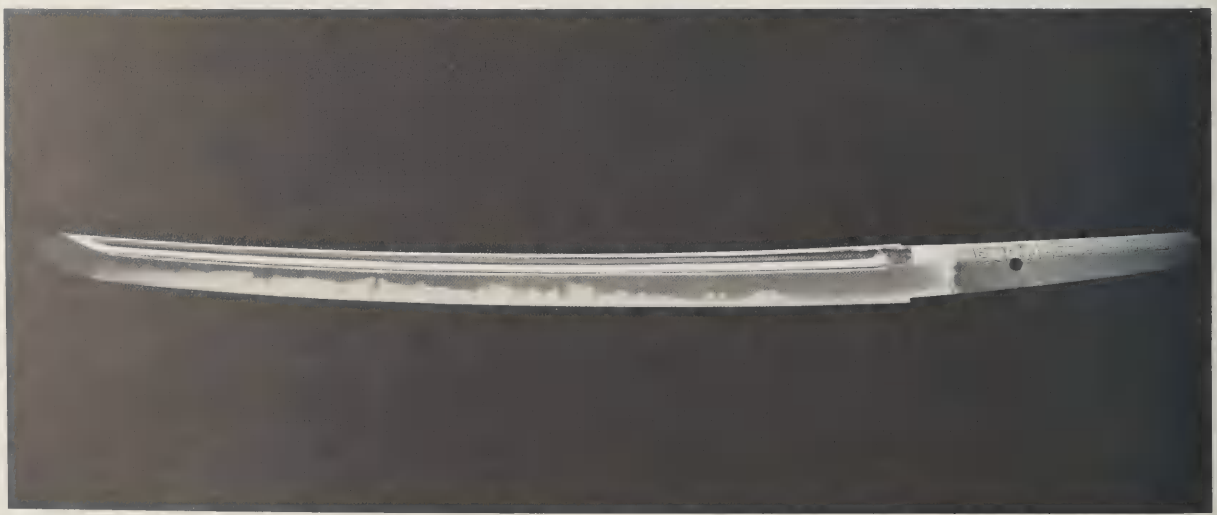
No. 118 Metal Worker's Bellows Used in Smelting and Refining Copper and Other Metals
Wood with brass repoussé covering of a dragon grasping a jewel of glass, length 44 cms.
Billings Fund, 1920

No. 119 Ornamental Nail-head Covers
Flowers (brass and enamels); flying angel (brass); fish (white metal); shells and sea life (gilded copper, length 19 cms.)
Gifts of Dr. C. G. Weld and Museum of Fine Arts, Boston

No. 120 Drawer-pull with Design of a Frog
Iron and copper, height 11.4 cms.
Gift of Dr. C. G. Weld

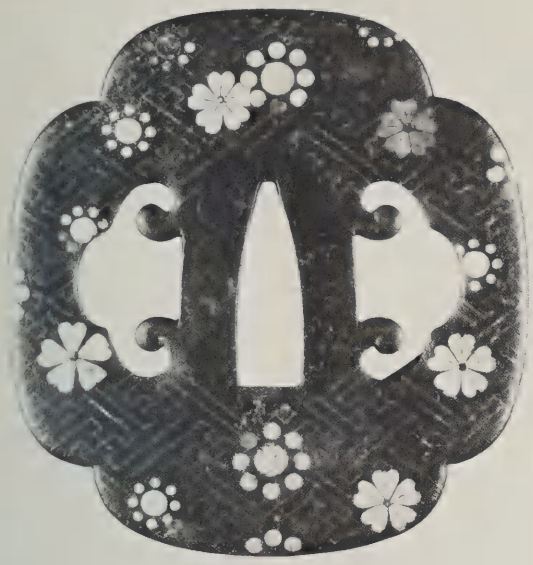
No. 121 *The Warrior-monk Benkei Stealing the Great Temple Bell from Miidera*
Miniature bronze sculpture with inlaid metals, height 71 cms.
Gift of Dr. C. G. Weld, 1909

No. 122 Wakizashi *("Short Sword")*
Inscription of the maker: "Kawamura Saburo Minamoto Jusatsu"
Ca. 1823, length 55.5 cms.
Gift of Mrs. C. G. Weld, 1912

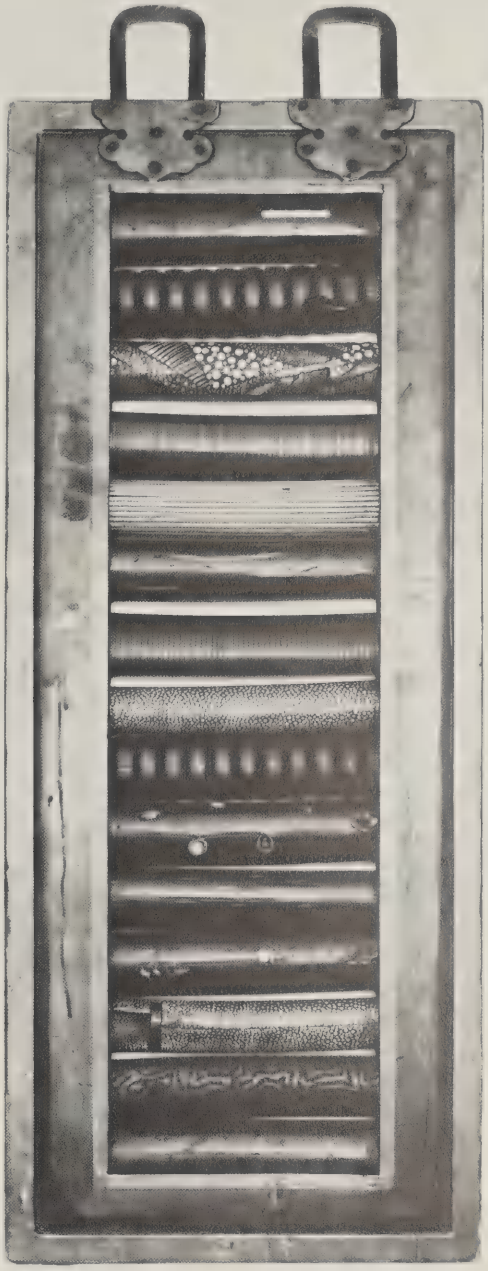


No. 123 Sword Maker's Tools
Left to right: draw anvil (51.5 cms.), file, hammer, tongs and cold chisel
Gift of Dr. C. G. Weld, 1908

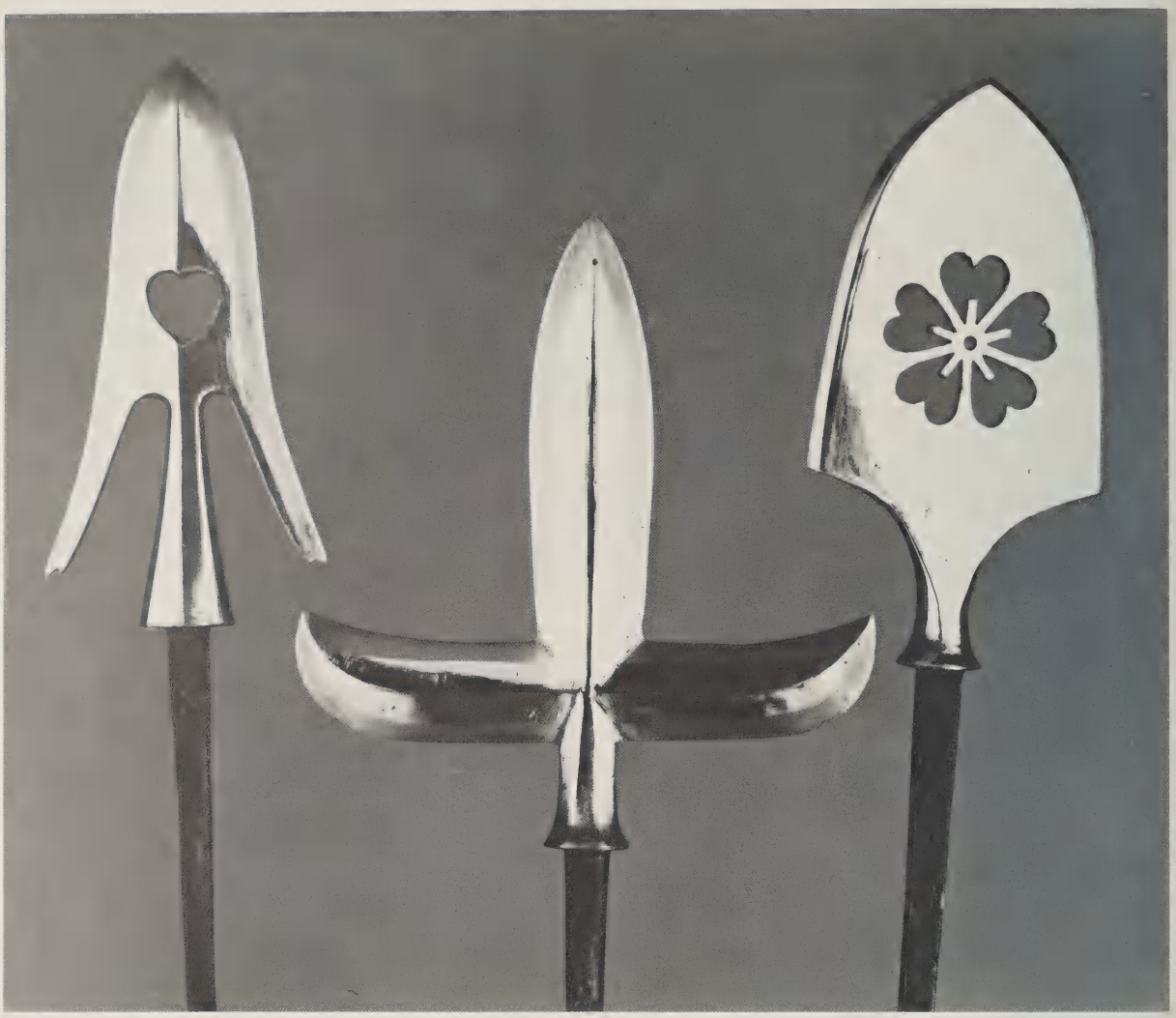
No. 124 **Tsuba** *(Sword guard), ca. 1850, signed "Ishiguro Masaaki"*
Hawk Perched on a Rock Overlooking Waves,
height 7.2 cms.
Gift of Dr. C. G. Weld



No. 125 Tsuba *(Sword guard), Higo School, ca. 1830*
Height 6.8 cms.
Gift of Mrs. C. G. Weld, 1937

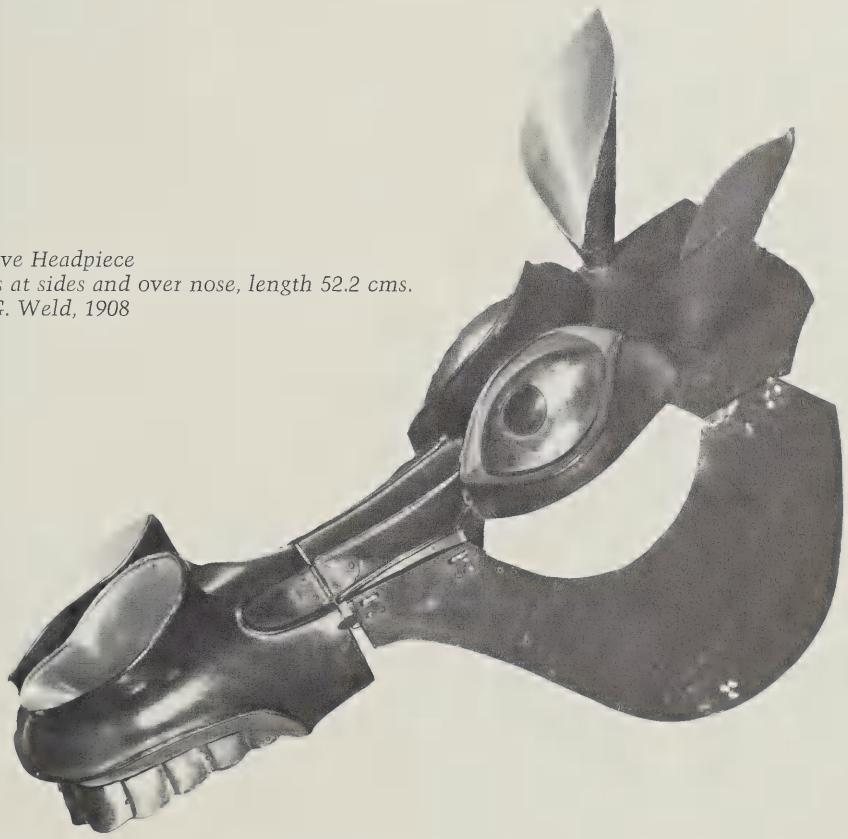


No. 126 *Shop Sign for a Scabbard Maker*
Various techniques of scabbard manufacture are shown, height 66.8 cms.
Gift of E. S. Morse, Dr. W. S. Bigelow and others, 1916



No. 127 *Arrowheads*
Lengths 19-21.5 cms.
Gift of Dr. C. G. Weld, 1910

No. 128 Arrowhead in the Form of a Moth
Length of blade 10.7 cms.
Gift of Dr. C. G. Weld, 1910



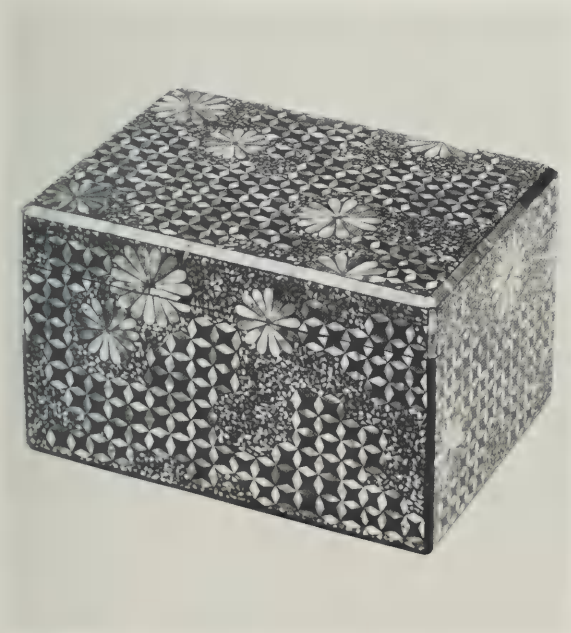
No. 129 Horse's Protective Headpiece
Hinged sections at sides and over nose, length 52.2 cms.
Gift of Dr. C. G. Weld, 1908

No. 130 Stirrups, Ujimasa, 17th Century
Iron inlaid with silver diaper and floral patterns, length 28.9 cms.
Gift of Mrs. C. G. Weld, 1912

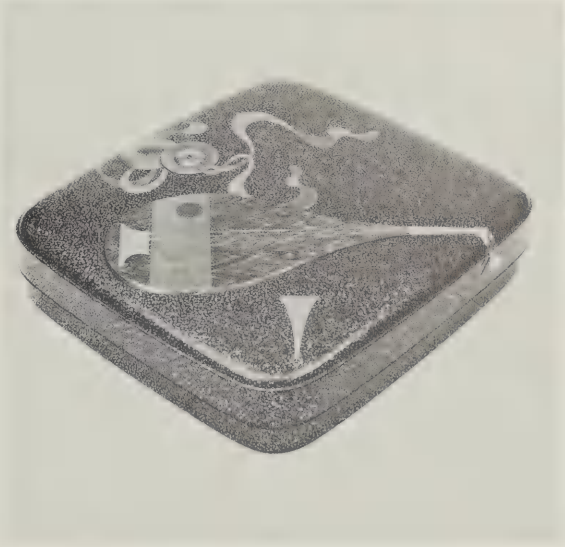
No. 131 *Saddle*
Lacquer over wood with brass fittings, length 36.5 cms.
Gift of Dr. C. G. Weld

No. 132 Lacquer Maker's Tools
Gift of Kojiro Tomita, 1911

No. 133 *Lacquer Box for Writing Paper*
Length 41.5 cms.
Gift of Dr. C. G. Weld, 1907



No. 134 *Lacquer Box with Inlaid Mother-of-Pearl*
Length 15 cms.
Gift of Dr. C. G. Weld



No. 135 *Lacquer Writing Box*
Length 26 cms.
Gift of Dr. W. S. Bigelow, 1921

No. 136 *Lacquer* Jikiro *(multi-level delicacy container)*
Lacquer, pigments and inlaid mother-of-pearl, height 30 cms.
Billings Fund, 1912

No. 137 *Warrior's Signal Fan*
Upper section shown, with the twelve animals from the East Asian zodiac
Lacquer over fabric, silver fittings
Gift of E. S. Morse, 1894

No. 138 *"Pepper Gun"*
Said to have been used for temporarily blinding an opponent by blowing pepper into his eyes
Lacquer and pigments over wood, brass fiittings, length 8.4 cms.
Purchased, 1959

No. 139 Raiden *(the God of Thunder)*
Kawanabe Kyosai (1831-1889), length 113 cms.
Gift of Mr. Charles H. Parker, 1936

No. 140 Futen *(the God of Wind)*
Kawanabe Kyosai (1831-1889), length 113 cms.
Gift of Mr. Charles H. Parker, 1936

No. 141 *Cat and Giant Catfish*
Kawanabe Kyosai (1831-1889)
Woodblock-printed design on a fan, length 41.1 cms.
Gift of E. S. Morse, 1911

No. 142 *Shop Sign for A Dealer in Painter's Pigments*
Diameter 37.5 cms.
Gift of E. S. Morse, Dr. W. S. Bigelow and others, 1916

No. 143 *A Demon Performing Buddhist Invocations*
Lacquer and pigments over wood, height 37.2 cms.
Gift of Mrs. Sybil A. Wolcott, 1947

No. 144 *Head of an Arhat, Shop Sign of the Wood Sculptor "Kuni Kahei"*
Diameter 46 cms.
Gift of E. S. Morse, Dr. W. S. Bigelow and others, 1916

5. Recreations, Amusements, and Cuisine

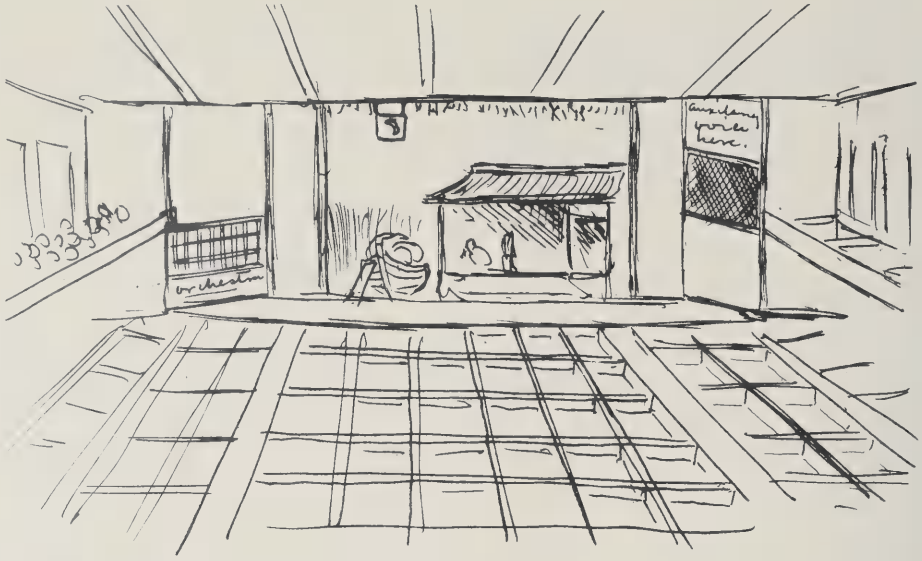
Drama, Dance and Music—Games and Toys—Sweets, Delicacies and Sake

Morse's eagerness to observe every side and aspect of the lives of the Japanese people, to see them in all the phases of their daily lives, at work and at leisure, pursuing their livelihoods and enjoying their entertainments and pleasures, fills the pages of *Japan Day by Day*, where one lively comment on these matters follows close on another. The desire to see and study the Japanese firsthand, to understand their ways and traditions through direct experience and participation, is characteristic of Morse's uninhibited and enthusiastic approach, and it is unlikely that any other pioneer student of Japanese culture pursued this objective more diligently, or with greater pleasure, than Morse did.

Entertainment and dramatic performances of every sort interested him. His account of his first visit to the Kabuki gives one a lively sense of the atmosphere and physical circumstances of the theatre, "*. . . a quaint-looking building decorated with long strips of cloth embellished with Chinese characters absolutely unintelligible to us, bright-colored lanterns, and a medley of grotesque signs. Within we come to a large rude sort of hall dimly illuminated, having a gallery on three of its sides. The place looked more like a huge barn. The floor was parted off by a framework leaving interspaces six feet square and a foot or more deep, and these bins were the boxes in which entire families could find room. . . . There is no chair, stool, or bench. . . . Here are entire families; mothers nursing babies, children inattentive to the play and sleeping, the ever-present fire vessel over which water is being heated for tea, old men smoking, and all so quiet, refined and courteous. The two aisles are floors on a level with the tops of the bins, and the people walk along these platforms, and then on the edge of the boxes, which may be five inches wide, to their respective places.*

The stage is low and the orchestra, at one side, is concealed by a black, painted partition. In the centre of the stage is an immense turntable, twenty-five feet in diameter, level with the floor. When the scene changes there is no lowering of the curtain, but the turntable slowly rotates carrying actors and all, bringing into view another scene that the stage hands have been busy about and carrying out of sight the scene already used. . . . The language was difficult even for the Japanese who interpreted for us. It was interesting to see the actors dressed in garments of the style of centuries gone by—the samurai with the long and short swords. A tipsy scene was acted with a great deal of drunken vigor; a stuffed kitten was dangled from the end of a long pole and stole a letter. Coming up the raised aisle from the entrance several actors stride along with a regular stage strut and swagger, the grandest of all having his face illuminated by a candle on the end of a long-handled pole held by a boy who moved along too and kept the candle constantly before the actor's face no matter how he turned. . . . The orchestra was in action all the time—a lazy, absent-minded thrumming on the Japanese banjo with now and then the toot of a flute."

On a later occasion, Morse went to a performance in a recently-completed theatre in Tokyo, "the best and largest in Japan," which had a seating capacity of fifteen hundred. He notes that "It is lighted by gas, well ventilated, and is altogether a fine exhibition hall." The interior layout of the theatre was essentially the same as that described above, with the same division of the main floor into low, divided boxes (No. 145). He was impressed by the ingenious methods utilized in the performance: "*The acting was exceedingly realistic, some of the scenes being shocking, as in the act of hara-kiri, where all the ceremonies lead up to the final catastrophe, when the head is carried away in a tray. All the details are shown: the baring of the abdomen, the cut from left to right with a short knife, the handle and blade held in the two hands; as the blade passes along, the cut appears as a blue line followed by a red fluid; the actor then throws his head forward and a friend starts to strike it off with a sword, but turning away in agony drops his weapon, which another quickly picks up, and terminates the sad tragedy. It is like a juggler's trick, for in the excitement you are not aware that some of the actors pass in front of the victim, so that the sword really seems to come down on the neck of the man, who has in the mean time, like a turtle, drawn his head within*



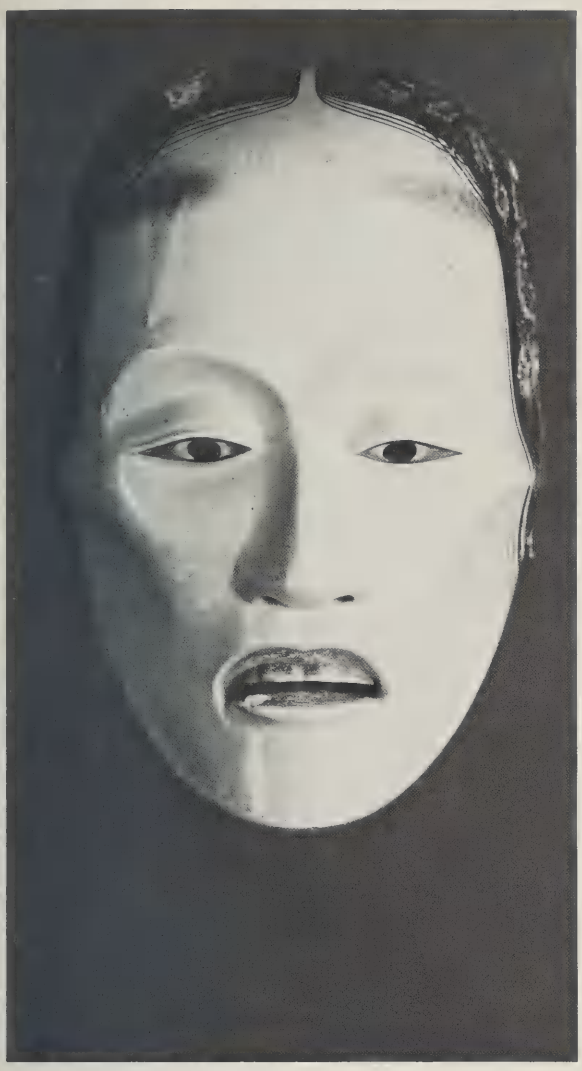
No. 145 Interior of a Kabuki Theatre
Sketch from Japan Day by Day, *E. S. Morse*

his loose robes. Be that as it may, a head with a bloody stump rolls out, which is gathered up, placed in a tray, and conveyed to the judge or daimyo, who, recognizing the features, knows that the act has been accomplished. The tragic sorrow of the friends is perfectly acted, and in the large audience many women are weeping. The play began at half-past six in the morning and continued in a series of acts until nine o'clock at night. . . . On the right of the stage is the orchestra shut in behind a black painted grating; from within came the sound of a big drum and a monotonous thrumming of the samisen as an accompaniment to the voices which followed the play, distressing or despairing according to the scene portrayed. On the left of the stage and even with the gallery was another barred enclosure, within which was a man possessed of a remarkable voice who wailed, cried, scolded, and shrieked,—making noises as of cats fighting, —and kept up this vocal accompaniment to the acting, going on hour after hour, tragic or otherwise. It really excites you or saddens you, as the case may be. At times the voice is ominous and prophetic and you anticipate some catastrophe which is sure to come."

Although not large in size, the collection of objects representing the popular, plebian theatrical traditions of Japan in the Peabody Museum includes a variety of interesting objects. One is the elegant theatrical helmet for use in the Kabuki drama (No. 146), which is notable for its rich decorative techniques and lovely colors. Another is the rare string-operated marionette, depicting a heroic warrior figure (No. 147), originally used in a provincial puppet theatre. Marionettes such as this one represent a historical variant from the main traditions of the puppet theatre in Japan, the dramatic form now known as "Bunraku," where the puppets are supported directly by the operators (usually three in number) and manually manipulated. By contrast, string-operated marionettes are rare, and their use seems to have been confined mainly to small, regional troupes.

There are also several fine objects from the classical Noh drama, such as the mask for roles of the "Yaseonna" ("Emaciated Woman") type (No. 148), and another example depicting the god of riches, "Daikoku" (No. 149), which was used in one of the comic interlude performances, known as Kyogen, performed between the more serious and austere segments of the Noh dramas.

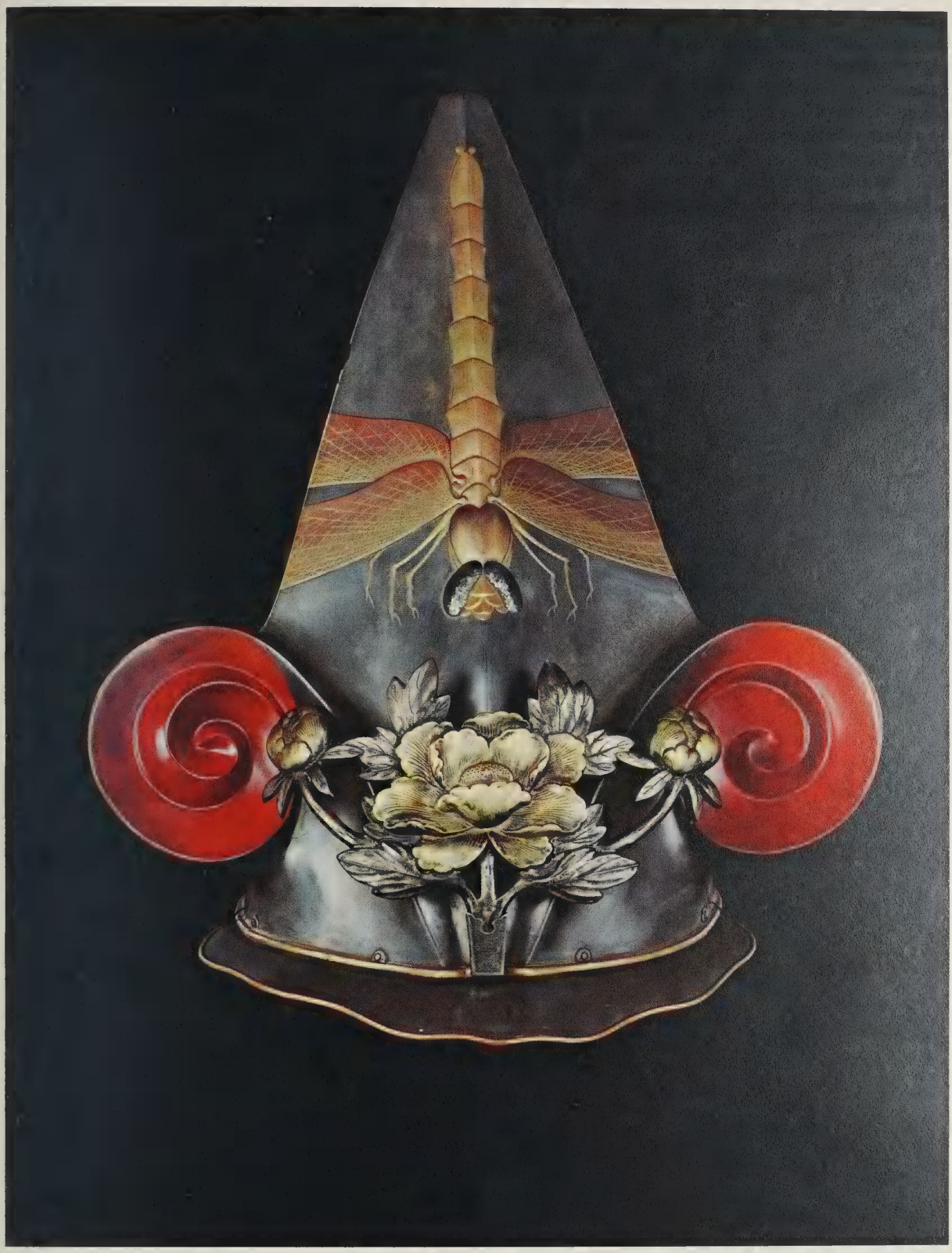
Although Morse's attitude toward things Japanese is consistently characterized by an enthusiastic open-mindedness and spontaneous interest, he nevertheless found it frustratingly difficult to feel any emotional affinity for certain forms of native music. On one occasion he was invited to attend a concert "at the old Chinese college." He observed: *"The music was an old form known as* kibigaku, *two hundred years old, and came from the Province of Bizen. . . . After a while the performers came in, six in all, two for the harps* [koto], *two singers, and*



No. 148 *Noh Mask ("Yaseonna"), Edo Period*
Paint and gesso over wood, height 21.2 cms.
Gift of Dr. C. G. Weld

No. 149 *Kyōgen Mask ("Daikoku"), Edo Period*
Paint and gesso over wood, height 17.7 cms.
Gift of Dr. C. G. Weld, ca. 1900

No. 147 Marionette
Paint and gesso over wood, textiles, height 78.5 cms.
Purchased from Yamanaka and Co., 1941



No. 146 Theatrical Helmet for the Kabuki Theatre
Lacquer over fabric, brass details and shell inlay, height 42 cms.
Gift of Dr. C. G. Weld, 1904

two more, one playing the flute and one a curious instrument called the sho (No. 150), *often figured in the Chinese books. It has a round base, like half a coconut, from which spring vertically a number of bamboo tubes of varying lengths; the mouthpiece is in the side of the base. . . . The leader was an old man, and he played the flute and at times a kind of short flageolet which had an extraordinary sound. The performance began with the old man uttering a monotonous series of gruff howls. Had he been suffering from an overdose of cucumbers he could not have uttered more dismal sounds; it was really ludicrous, and one found it difficult to preserve one's gravity. While he was making these sounds another performer picked an accompaniment on the koto. This seemed to be a sort of prelude, for after a while one of the young men began to sing, and the old man played on the flute, and all the instruments started, the sho keeping up an accompaniment in one or two tones sounding not unlike a bagpipe. Each piece, though widely different in title, sounded very much alike to me. It was by no means unpleasant to hear, and yet from our standpoint I should not call it music. The title of one of the selections was 'Moon on a Spring Night'; another was named after a certain general; . . . another, which I thought would never end, was appropriately called 'Time.'"*

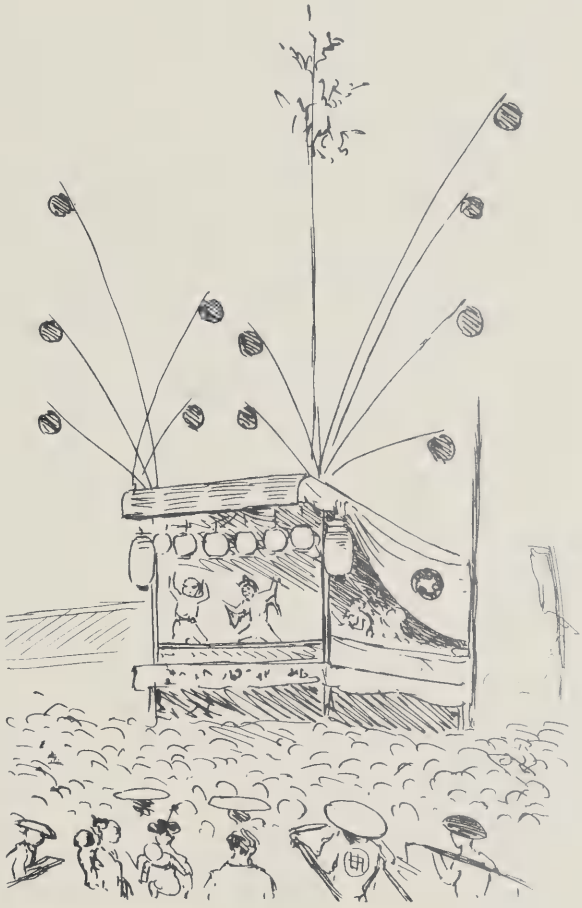
No. 150 Hand Organ (Sho)
Bamboo, silver and lacquer over wood, height 48 cms. Purchased, 1904

It is typical of Morse, however, that despite his problems in comprehending such musical forms, he felt constrained not to make premature judgments, to remain (unlike the typical foreigner) uncommitted in his serious opinions about matters that he had not carefully studied and considered in an unbiased manner. Thus he questions *"Is this music in our sense of the word? It is, but widely unlike ours. The sober, passive countenances of the performers are never enlivened by a smile; there are no dilated nostrils nor sparkling eyes nor swings of the head as with our singers when inspired by the words. It seems impossible that they should feel any inspiration or thrill from the monotonous sounds."* But he continues by observing *"Now this impression is felt by one who frankly confesses that he knows nothing about it. We thought certain forms of Japanese pictorial art absurd: certain prints, for example, with startling violations of perspective; human figures whose femora would have the proportions of baseball bats, whose skeletons, if found, would be classed as new genera; and yet these pictures command the admiration of our artists. It may be that their music will ultimately prove to have merits of which we get no hint at present."* On another occasion, Morse had the opportunity to observe a similar orchestra playing in a more authentic and appropriate location—during a religious ceremony in a temple at Ueno Park—and he has left us a delightful sketch of this group (No. 151). The fact that Morse later took lessons in *Utai*, the chanting that accompanies a Noh

performance, and observes "It is by taking actual lessons . . . in singing that I may learn many things from the Japanese standpoint," is good evidence of his fervent desire not to let any cultural bias inhibit his comprehension and potential appreciation of any aspect of Japanese culture.

No. 151 Orchestra for a Shinto Religious Service
Sketch from Japan Day by Day, *E. S. Morse*

Morse's travels also brought him into contact with other forms of entertainment, such as the activities held at local festivals, with their lively folk performances and "shows." *"When we reached Fujisawa the place was filled with people. Down the steps of one temple came a troop of forty or fifty men dressed in white, with curious brown paper hats, resembling liberty-caps, on their heads, bearing on their shoulders a huge affair resembling a miniature temple, and ahead a drum was being beaten with slow, monotonous strokes in threes. . . . I slowly meandered through crowds of children and grown folks and toy booths, the whole presenting the appearance of a fair. A theatrical performance of some kind was in full action. A man vigorously beating a drum was loudly calling attention to something which appeared to be a collection of carved figures arranged behind him. . . . The 'show' was in a curious kind of a tent with a little stage about seven feet long, and a small audience stood directly in front of it. . . . On the stage two children came together, one dressed like a kangaroo and jumping about like one, the other in the guise of a little fat man with a mask more grotesque than I ever saw before, the whole figure reminding me of John Gilbert's drawing of Falstaff. . . . They danced about for some time, to the delight of the children."* On another occasion, in Tokyo, he came upon a bustling neighborhood fair. *"Coming up from the station I noticed a great crowd in the street, and saw on one side a booth, something like a bandstand, where a pantomime was being acted. Such extraordinary gestures were made and such curious masks were seen that I watched it as eagerly as the crowd. . . . I held my jinrikisha back at the side of the road and endeavored to make a sketch of the show, but such a crowd of people were looking over my shoulder, and others fairly hiding the object from view, that I only got an impression of the scene."* Despite the difficult circumstances, Morse's lively sketch effectively captures the atmosphere of the fair, with its dense crowd and the actors on the stage (No. 152).



No. 152 Dramatic Performance at a Festival in Tokyo
Sketch from Japan Day by Day, *E. S. Morse*

A charming memento of his interest in folk festivals and performances is shown in No. 153. This is a depiction of farmers from Bingo Province (present-day Hiroshima Prefecture) performing a traditional dance held on auspicious occasions or as an appeal to the gods for rainfall. The painting was done especially for Morse by Fujii Shorin, who was a contemporary painter of the Maruyama School and a native of Bingo.

Morse was fascinated by the delightful array of children's toys for sale at almost

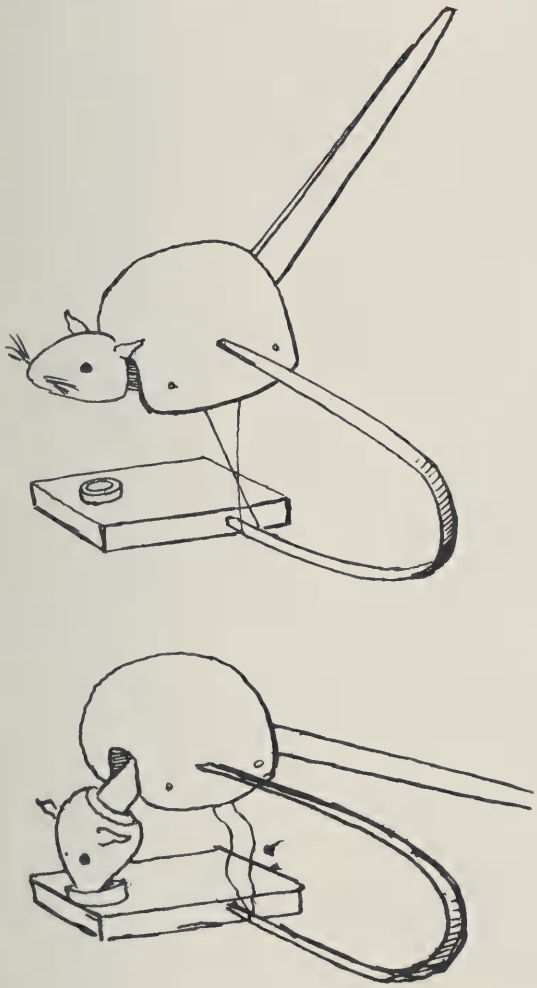
every street corner and neighborhood fair, and he assembled the nucleus of the extensive collection now preserved in the Peabody Museum. He observed: *"The mechanical toys are always interesting. With the simplest of construction, and frail as many of them appear, their durability is remarkable. The mouse that eats out of a dish and drops his tail at the same time is shown in No. 154.*

No. 153 Traditional Dance Performed by Farmers in Bingo Province
Painted by Fujii Shōrin for E. S. Morse
50.6 x 32.2 cms.
Gift of Mrs. Catherine Whyte, 1977

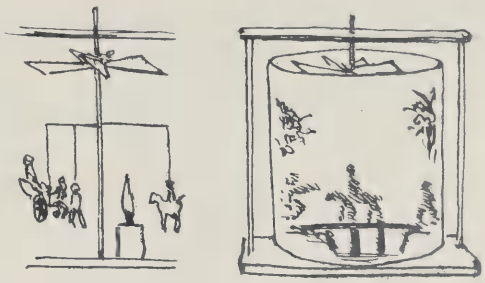
The bamboo spring on the side keeps the mouse in an attitude of head and tail up, by strings that run up from the stand below. The moment you press the spring the string is loosened, the head and tail drop, the head going into a little ring of bamboo which represents a dish. . . . The Japanese have a great many ingenious devices for toys of this description, many of them on sticks to be moved by strings, or they may move like our jumping-jacks." Another clever and entertaining device was a paper lantern *". . . in the form of a cylinder of paper, within which was a central axis of wood supporting a windmill above, the heat of the candle turning the axis; projecting from the sides of this were supported figures cut out of paper in the shape of a man on horseback, a jinrikisha, and figures of people. On the lantern a little bridge and landscape were painted, and as the figures moved round, the candle shadows were thrown on the cylinder of paper, and thus a moving picture was made of these objects crossing the bridge: a most entertaining toy for children, and its price was one and a half cents (No. 155)."*

Unlike the typical visitor from abroad of the period, Morse was anxious to try all the native foods and various kinds of cuisine, and we have included a number of his observations on his gustatory experiences earlier, in the essay. Although he had difficulty with a few exotic varieties initially, it did not take him long to adjust to, and

indeed, become an ardent advocate of most Japanese dishes, as well as the national drink made from fermented rice, *sake*. Many of the sketches in *Japan Day by Day* deal with Japanese food, ranging from formal preparations for special occasions or holidays down to everyday fare, and the sweet specialties favored by children. One of the latter was a kind of "griddle cake" (No. 156). *"One old man had a boxlike stove, the upper surface being of stone beneath which was a charcoal fire. At one side was a large jar containing a mixture of rice flour, eggs, and sugar—a batter, in fact. He would sell this to the children by the cupful and provide a little tin spoon and they were allowed to spread it out a little at a time on the stove, cook it, and then, scraping it off, eat it, or give it to their little friends, or feed the baby perched up behind."* Another sketch shows a candy peddler (No. 157), *". . . a good-natured old man who, to draw a crowd of children, had a form of glass cut into a number of facets and looking through it many images could be seen. He had a number of these in handled frames which were given to the children to look through while he danced about and made all sorts of funny motions; he also had some bright-colored butterflies on sticks and these he would twirl. In a box was his candy to sell."*

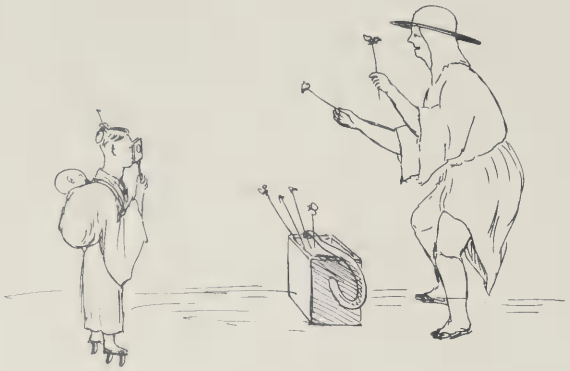


No. 154 Toy Mouse
Sketch from Japan Day by Day, *E. S. Morse*



No. 155 Child's Shadow Lantern
Figures inside revolve by the heat of a candle
Sketch from Japan Day by Day, *E. S. Morse*

No. 156 Children Making "Griddle Cakes"
Sketch from Japan Day by Day, *E. S. Morse*

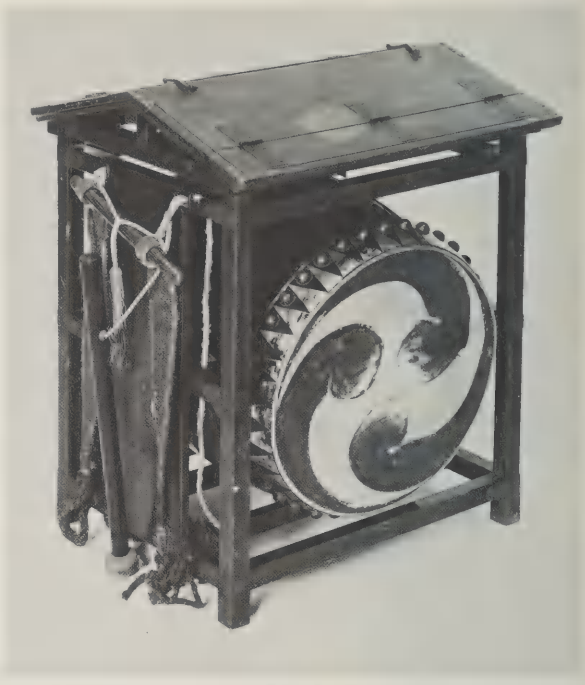


No. 157 *An Itinerant Candy Peddler*
Sketch from Japan Day by Day, *E. S. Morse*

No. 158 *Theatrical Helmet for the Kabuki Theatre*
Red, gold and black lacquer over fabric and wood, height 92 cms.
Gift of Dr. C. G. Weld, 1904

No. 159 Bunraku Puppet
Paint and gesso over wood, hand-painted fabric and woven textiles, height 106 cms.
Purchased from Yamanaka and Co., 1937

No. 160 Hat worn by a Bugaku Dancer, Edo Period
Pigments over leather, height 36 cms.
Gift of Mr. and Mrs. Hans Mueller, 1923



No. 162 Festival Drum, 19th century
With cherry wood carrying frame, height 63 cms.
Gift of E. S. Morse, 1897

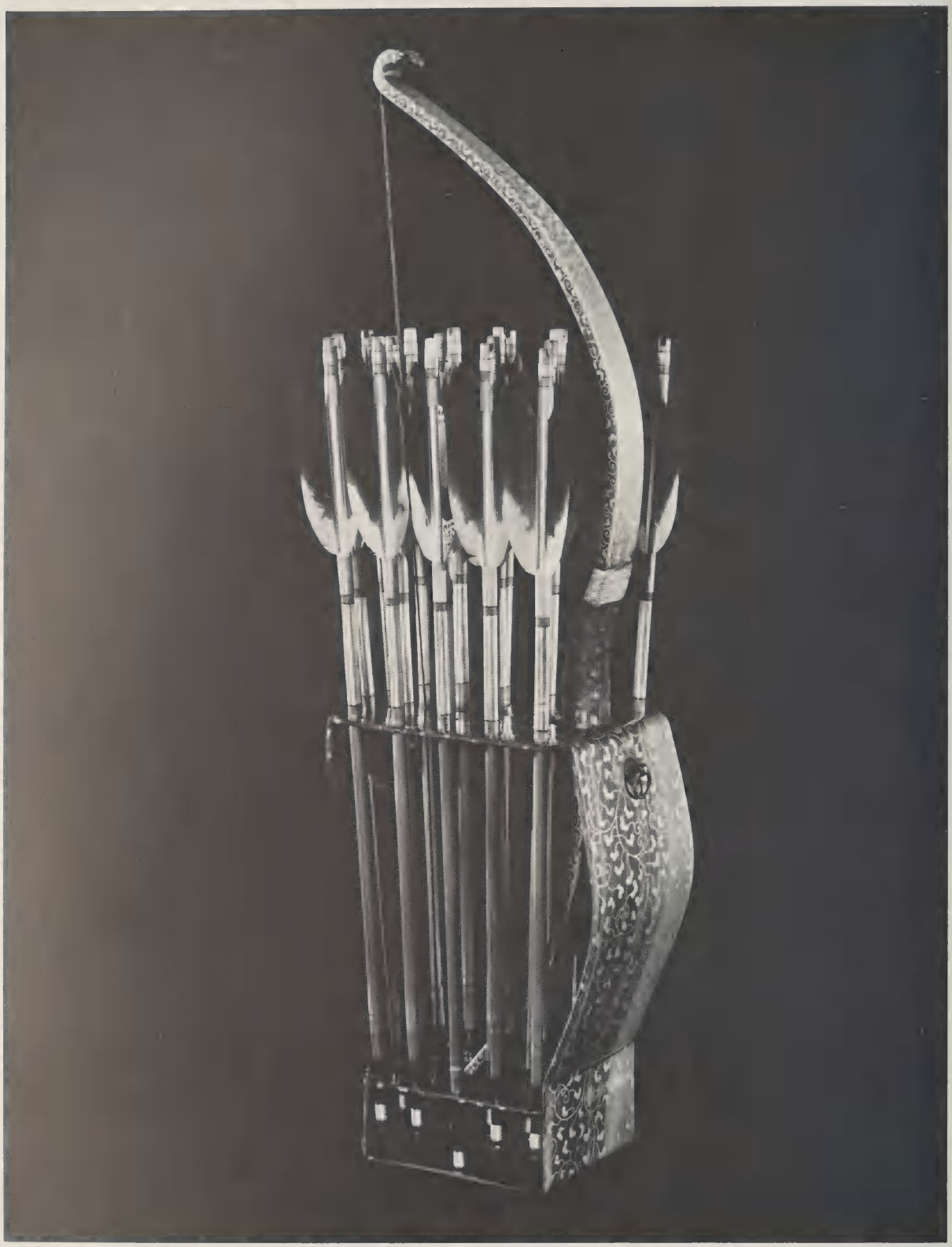
No. 161 Theatrical Mask, Edo Period
Wood with pigments, height 38 cms.
Gift of Mrs. Sumner Pingree, 1943

No. 164 *Theatrical Mask ("Karura"), Kamakura*
Period (?)
Pigment and gesso over wood, height 35 cms.
Gift of Dr. C. G. Weld, 1909

No. 163 *Small Hand-drum* (Kotsuzumi)
Length 26 cms.
Gift of Dr. C. G. Weld

No. 165 Sumo Wrestler's Ceremonial Apron
Embroidered design of the "Demon Queller" Shōki, brocade and gold twisted fiber designs, overall length 495 cms.
Gift of Louis E. Cheney, 1914

No. 166 *Samurai's Summer Hunting Vest*
Woven hemp, painted and bound with stenciled leather and ornamented with silk embroidery, length 86 cms.
Billings Fund, 1913



No. 167 Bow and Arrows in Carrying Stand
Height 60 cms.
Billings Fund, 1913

No. 168 Child's Mask of a Warrior
Pigments and gesso over paper, height 19 cms.
Acquired by John More in Japan, 1878-79
Gift of John G. Morse, 1890

No. 169 Child's Mask of a Fox
Woodblock design on paper, height 23 cms.
Gift of E. S. Morse, ca. 1880

No. 170 Child's Paper Toy
Woodblock print with design of six masks whose articulated mouths open when strings are pulled, 36.9 x 22 cms.
Gift of E. S. Morse, 1897

No. 171 Child's Toy Horse
Length 30 cms.
Gift of Dr. W. S. Bigelow, 1915

No. 172 *Shop Sign for a Toy Store*
Pigments and gesso over wood, height 96.3 cms.
Gift of E. S. Morse, Dr. W. S. Bigelow and others, 1916

No. 173 *Incense Identification Game*
Length of box 22.8 cms.
Purchased, 1924

No. 174 Shell Matching Game
Height of box 35.5 cms.
Gift of Dr. C. G. Weld, 1908

No. 175 Sign for an Inn Serving Hot Bean-curd Dishes ("Yudofu")
Paint and lacquer over wood and metal, height 115 cms.
Gift of E. S. Morse, Dr. W. S. Bigelow and others, 1916

No. 176 Sign for a Dumpling Shop
(the sign suggests that the dumplings are as large and round as the Sumo wrestler depicted on it)
Height 82 cms.
Gift of E. S. Morse, Dr. W. S. Bigelow and others, 1916

6. Dress, Adornment, and Personal Services

Clothing and Footwear—Barbering, Hair styling and Adornment—Health and Hygiene

The broad variety of native attire, from the breech-cloths and rough garments worn by laborers, fishermen and jinrikisha-pullers to the formal attire worn on special occasions by gentlemen, together with the diverse clothing worn by women and girls of different ages and classes, as well as children's wear, all attracted Morse's attention, and he comments repeatedly on such matters, and includes many engaging sketches of their particulars in *Japan Day by Day*. He was amused by the pioneering experiments with Western dress by some Japanese at a time when foreign garb was making its first appearance. He notes: *"The Japanese in their adoption of our clothing manage very well with the hat, and even with the clothing, though it is always ill-fitting and shocking-looking in contrast to their own sensible and graceful robes." "At the opening of the Exposition here* [Tokyo] *one saw individuals dressed in our clothes in the most extraordinary way. One man had a suit altogether too small for him. The waistcoat and trousers did not meet within three or four inches and strings were used to tie them together. A good many were in full evening dress with the trousers tucked into long-legged boots that came to the knees. The oddest-looking travesty was another man, also with a dress-suit, the coat tails of which nearly touched the ground, while bright red suspenders came outside his waistcoat! In respect to clothing, the Chinese are much more dignified in adhering to their native costume, which, like the native costume of the Japanese, is more comfortable than ours. I had the greatest charity for them, however, when I recalled the attempts of our people to dress* a la Japonaise." When Morse tried to "go native" himself, however, he soon realized that the Japanese had their own ideas about proper style. *"I had a Japanese gown made for me, tied with an* obi, *which looked to me quite grand. It came down to within three inches of the heels; I asked Toyama if it was alright; he smiled and said that it was not long enough, it should be two inches longer. Upon pressing him as to how it looked I found it had the same appearance to him that a countryman in our country might have to us with his trousers three inches too short! In other words, it looked 'green.' Thus their dress, careless as it looks to us with its loose folds and rather girlish appearance, has its precise lines and proportions. With the exception of China there is probably no country in the world where more thought or care is bestowed upon dress than in Japan. Official rank and station, material and color, design, form of knot, and other details are rigidly adhered to."*

Western clothing posed certain difficulties for Japanese women as well, although Morse admired them in their native dress. Thus, at a reception for General Grant, who visited Japan in 1879, Morse observes: *"A number of teachers from the Nobles' School, with a class of forty young girls, were very attractive. They were all beautifully dressed and excited much admiration from the foreigners, of whom there were many. In the Japanese dress as seen in masses the soft, harmonious colors and graceful folds form a striking contrast to the dress of foreign ladies. I know of no more perfect illustration of the artistic character of the people than the grace and beauty of their clothing in strict harmony with their short stature, and their jet-black hair wonderfully arranged and ornamented. The contrast is immediately recognized when they attempt our costume; . . ."* Morse's admiration for the Japanese woman dressed in her traditional *kimono* is evidenced by a lovely small drawing of the wife of a Japanese professor, who accompanied her husband to visit the Morses, and allowed him to sketch her (No. 177).

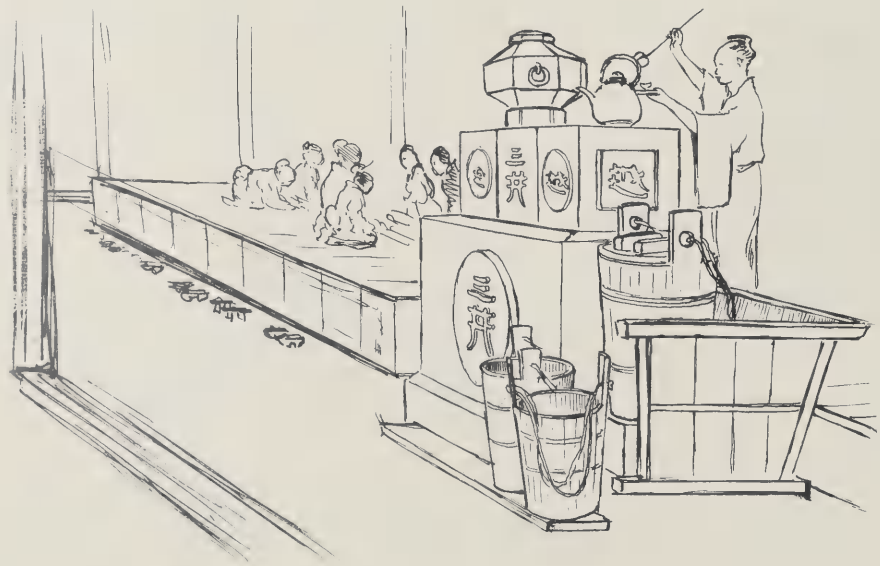
A visit to the largest dry-goods establishment in Tokyo, apparently the parent of today's great chain of Mitsukoshi department stores, was of particular interest to Morse because of the flourishing business in clothing fabrics carried on there. *"To see a big shop without counters or seats is curious. The clerks and salesmen sit in the usual way on the straw matting, the customers likewise. Entering from the street the customer steps from his sandals on to the raised floor, the sandals being left behind. A cup of tea is immediately served on a tray to every one, whether a purchase is made or not. . . . All the attendants had their hair dressed in true*

No. 177 *A Japanese Lady*
Sketch from Japan Day by Day, *E. S. Morse*

Japanese style, and running about were little boys, probably cash boys, who at times emitted a curious, prolonged call. The extreme slowness, gravity, and politeness the attendants showed in all their movements contrasted strangely with the crowds and activity in similar places at home. At the farther end of the store was an artistic device of copper. This was the water-boiler, or heater for tea. A man was in constant attendance making tea and pouring it into cups, and little boys were coming with trays to carry the tea to the customers (No. 178).

Hibachis containing coals of fire were conveniently placed for the smokers, both men and women, though the customers were mostly women. . . . All the massive beams above and the woodwork were in natural wood. The brilliant colored silks, brocades, and crape, and the handsomely dressed ladies and children with flowered hairpins, added greatly to the scene." Among the Peabody Museum's collection of shop signs is a colorful example from a smaller establishment, with a depiction of a woman dressed in the elaborate robes traditionally used in court circles, that must have served as an effective advertisement for the *kimono* textiles handled by the firm (No. 179).

Japanese footwear, so different from the types used in the West, naturally attracted Morse's interest. He made a point of noting the distinctive native practice, *"—the Japanese invariably leaving their wooden clogs outside the house, either on the stepping-stones or in the earth-floor at the entrance. The wearing of one's shoes in the house is one of the many coarse and rude ways in which a foreigner is likely to offend these people. . . . Happily, however, the act of removing one's shoes on entering the house is one of the very few customs that foreigners recognize,—the necessity of compliance being too obvious to dispute."* The neatness and logicality of the typical closet for footwear drew his admiration, and he did a careful sketch of one in an old house near Ueno (No. 180). With his sharp, observant eye, he noted: "The briefest exam-



No. 178 *Interior of the Mitsui Dry-goods Store, Tokyo*
Sketch from Japan Day by Day, *E. S. Morse*

No. 179 Shop Sign for a Store Selling Textiles for Kimono
Pigments over wood, iron fittings, height 107 cms.
Gift of Dr. C. G. Weld, 1909

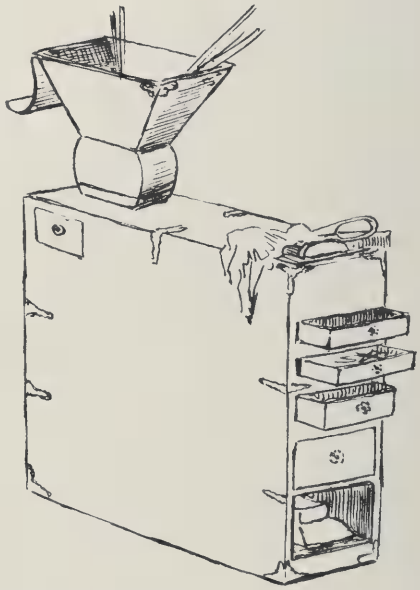
ination of the various clogs it contained revealed the same idiosyncracies of walking as with us,—some were down at the heel, others were worn at the sides. There were clogs of many sizes and kinds,—common clogs of the school-children, with the dried mud of the street still clinging to them, and the best clogs with lacquered sides and finely-matted soles."

No. 180 Footwear Closet in an Old House Near Ueno
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

The collection in the Peabody Museum includes a representative variety of Japanese footwear. Among the most extreme in form are a pair of high platform *geta* ("clogs") made for a courtesan from one of the pleasure quarters (No. 181). Lacquered black, they are constructed to complement the wearer's modish appearance by increasing her height. The inherent weight and awkwardness of *geta* such as these compelled the wearer to proceed in a slow, deliberate manner, and this way of walking, lifting each clog in turn and placing it at an angle in front of its mate, became an established tradition for the great courtesans when they paraded in their best attire.

Morse discovered that traditional Japanese tonsorial practice also varied widely from Western custom. He observes: *"So far I have seen no barber's shops. The barbers are itinerant and carry with them a brass-mounted box with drawers for razors, etc. (No. 182). This is made of some dark wood with brass devices and reeks with oil and pomade. The shears are like our sheep shears and the razors are long, thin strips of steel entirely unlike the Chinese razor. You will see the hone of the razor below; the drawers*

No. 181 High Platform Clogs Used by a Courtesan
Black lacquer over wood, woven straw, velvet straps, height 24 cms.
Gift of E. S. Morse, collected in Japan ca.1878-79



No. 182 Barber's Portable Box
Sketch from Japan Day by Day, *E. S. Morse*

were filled with pins, strings, bits of hair, etc. The wooden funnel above held sticks that seemed like skewers to hold the hair in position temporarily; the curved piece of brass hanging from the edge of the funnel is to hold the fine hair shaved from the face; the barber scrapes the razor on its edge. I saw one of the students being shaved; and though I have mentioned the fact that they shave the faces, I was not prepared to see the barber actually shave the eyelids, not shaving off the eyelashes, of course, but shaving the entire face, nose, cheeks, eyelids and all." "I came across a Japanese book in which were some remarkable . . . . sketches illustrating the various modes of dressing the hair for boys and men—old styles of a hundred years ago and the present styles. In No. 183 I have copied a few of the designs. Some of the styles are very often seen now, though there is no foreign idea that has been adopted so promptly as our style of dressing the hair; its common sense appealed to the people at once. Consider the bother of having the top of one's head shaved every two or three days and the queue waxed and firmly

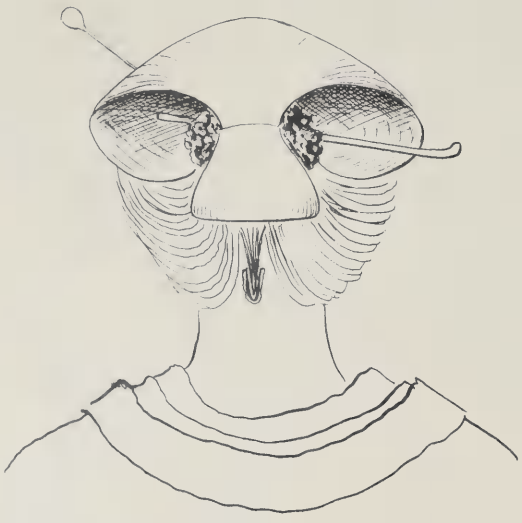
No. 183 Men's Traditional Hair Styles
Sketch from Japan Day by Day, *E. S. Morse*

arranged on the bald spot. To keep it in place night and day must have been a burden. The fishermen, the farmers, and classes of that kind still adhere to the queue; also old scholars, antiquarians, and a few others. The students of the University have all adopted the foreign way of wearing the hair. Many of them find it difficult to have it smoothed down or parted in any way, and some of them have a perfect mop of hair radiating in all directions, but cut close."

The variety and particulars of girls' and women's hair styles drew Morse's attention, and *Japan Day by Day* includes a number of precise drawings of this subject. "The method of dressing the hair from infancy to old age is a source of interest and wonderment to a foreigner. How a child can manage to preserve her elaborate coiffure for an hour, not to say three days, is past comprehension." He was amazed at the number of coiffure styles, and notes: *"It is said that the first thing young ladies do when they meet is to discuss these various styles. The very method of making these graceful bows and knots necessitates the employment of a hairdresser, and women barbers go from house to house to perform this service, which is inexpensive. The country people do their own hair or perform reciprocal services. For a hair dressing a vegetable wax preparation is used, and the hair has quite a polish when properly dressed. . . . Nos. 184 and 185 show the side and back views of Mrs. K. In the*

No. 184 Mrs. "K", Side View
Sketch from Japan Day by Day, *E. S. Morse*

back view the hair forms a sharp keel which is kept in place by a whalebone, or iron clip." "In the street one sees the most poorly dressed girls with their hair beautifully arranged; even little children, four or five years old, will often show that more care is taken with their hair than with their dress, which may even be ragged. A tousled head is not a common sight. In these various styles of hair-dressing a Japanese recognizes different ranks of people: the handmaid, the



No. 185 Mrs. "K", Back View
Sketch from Japan Day by Day, *E. S. Morse*

country girl, the young lady, and certain forms that are considered very 'dressy'; and finally, the very highest classes and royalty; while entirely different forms may be seen in pictures and possibly on the stage."
"Among the charms of the country are the restaurants and tea-houses. The waiters are all girls, so gentle in their behavior, so neatly dressed, and in every instance with their hair gracefully arranged. No. 186 shows the prevailing style of hair-dressing. Sometimes one sees the folds of the bow standing vertical, with the larger fold above." One of Morse's

No. 186 Coiffure of a Country Waitress
Sketch from Japan Day by Day, *E. S. Morse*

most meticulous and charming renderings is of a young woman with her hair done up in "the latest style" (No. 187). "My daughter noticed the braid, which is entirely new to the Japanese in hair-dressing. It is adopted from the foreigners, particularly the children with their long braids behind."

No. 187 Young Woman with her Hair Done in the "Latest Style"
Sketch from Japan Day by Day, *E. S. Morse*

The coiffures of Japanese women and girls were traditionally embellished by the addition of combs and long, elegant ornamental pins. The latter are called *kanzashi*. *"Here one sees the ingenious way in which, with the simplest materials—cloth, gold paper, delicate spiral springs, straw, spangles, red coral, etc.,—a great variety of objects are made. Quite half the designs represent flowers. I do not remember ever seeing a natural flower worn in the hair nor on the person. . . . Hardly a visit is made without a present of some kind being offered, and these kanzashi are favorite objects for that purpose."* The Peabody Museum is fortunate in having a very extensive collection of *kanzashi*, and the decorated tops of three fine metal examples are shown in No. 188. On the left is a floral arrangement; in the center a miniature compass surrounded by the characters representing the "twelve animals"; and on the right a representation of Bodhidharma, the legendary patriarch of the Zen sect, miraculously crossing the Yangtse River in China while standing atop a reed. Tortoise shell was often used to make *kanzashi*, decorative combs, and other objects for personal use, such as spectacles, and the unusual shop sign of an artisan who produced such objects, consisting of the actual shell of a sea turtle with gold characters inlaid, is included here (No. 189).

Matters of public health, sanitation, and wholesome environment were serious pre-

No. 188 *Details of the Heads of* Kanzashi *("Hair Pins")*
Left: Flowers and leaves in silver, gilded silver and coral
Center: Magnetic compass surrounded by the characters for the "twelve animals", gilded silver
Right: Bodhidharma Crossing the Yangtse on a Reed, silver and gilded silver
Lengths (overall) 17.2-22.1 cms.

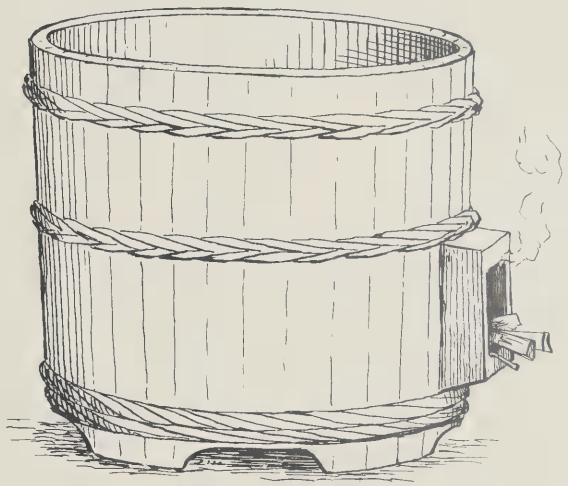
No. 189 Shop Sign for an Artisan who Produced Articles of Tortoise Shell
Actual tortoise's shell with gold characters, height 46 cms.
Billings Fund, 1914

occupations for Morse throughout his life, as we have noted earlier, and he found much to admire in Japan. *"Somewhat astonished at hearing that the death-rate of Tokyo was lower than that of Boston, I made some inquiries about health matters. I learned that dysentery and cholera infantum are never known here; some fevers due to malaria occur, but are not common; rheumatic troubles show themselves among foreigners after several years' residence. But those diseases which at home are attributed to bad drainage, imperfect closets, and the like seem to be unknown or rare, and this freedom from such complaints is probably due to the fact that all excrementitious matter is carried out of the city by men who utilize it for their farms and rice-fields. With us this sewage is allowed to flow into our coves and harbors, polluting the water and killing all aquatic life; and the stenches arising from the decomposition and filth are swept over the community to the misery of all. In Japan this material is scrupulously saved and goes to enrich the soil. . . . This stuff is often transported miles into the country, where it is allowed to remain in open half oil-barrels for a time and then is distributed to the rice-fields by means of long-handled wooden dippers. Besides this substance for the enrichment of the soil a great many cargoes of fish manure are brought from Hakodate. Without manure they do not cultivate; the soil is not rich in productive materials, as it is mostly of volcanic origin."* He also approved of the traditional practice of keeping the streets clean and dust-free by sprinkling water regularly. *"The streets and smaller alleys are generally well watered. The people abutting a street may be seen sprinkling it with large bamboo dippers. In Tokyo men go along the streets having suspended on carrying-poles deep buckets of water. A plug is lifted out of a hole in the bottom of the bucket and a spreading stream of water pours out, the man in the meanwhile almost running to scatter the water over as wide an area as possible."*

In regards to diseases and ailments, Morse notes: *"The climate of Japan is considered remarkably healthful. Smallpox, which has always been epidemic, is now coming under control, the Government taking vigorous measures to secure general vaccination and maintaining a vaccine farm for the purpose. In this matter as in many others, the Japanese are far ahead of occidental nations. Scarlet fever is almost unknown, never epidemic; diphtheria also is rarely seen, never epidemic; severer forms*

of bowel complaint, such as dysentery and chronic diarrhoea are very rare; phthisis is not more common than in the Middle States of our country; malarial diseases of severe nature are uncommon, even the milder forms in most regions not being common; acute articular rheumatism is rare, muscular rheumatism very common; . . . It is said that injuries and fractures of the bones heal very slowly and often imperfectly. Rice has but half the ash material of wheat, and the water does not supply sufficient inorganic matter necessary for the bones."

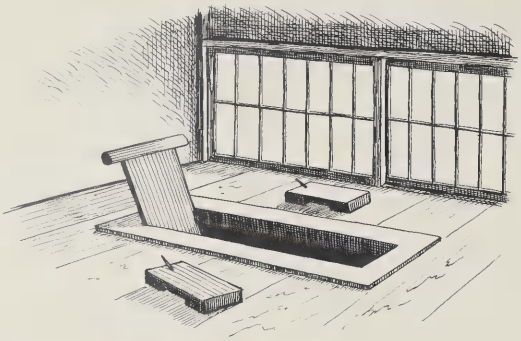
Japanese bathing customs elicited the most enthusiastic praise from Morse. *"If cleanliness is next to godliness, then verily the Japanese are a godly race. The simple statement, without qualification, that numbers of Japanese in their public baths bathe in the same water would seem a filthy habit. Certainly if such a statement were really true in regard to our own lower classes, it would be a most filthy habit. When it is understood, however, that the Japanese working classes—such as the carpenters, masons, and others—often bathe two or three times a day, and must of necessity enter the bath in a state of cleanliness such as our workmen rarely if ever attain, the statement loses some of its force. When it is further added that these people do not wash in the baths, but boil or soak in them for a while, and then upon a platform, with an extra bucket of water and a towel, wash and dry themselves, the filthy character of this performance assumes quite another aspect. . . . The public baths, however, do not concern us,—though it may be well to contrast our country with Japan in this respect, where in the latter country every village and every town, and in the city nearly every square, possess public baths where for the price of a cent or two one may find conveniences for a hot bath; while in our country public baths are only found in the larger cities, and few of these even can boast of such a luxury. As for the private houses in our country where bathing is customary, an inquiry shows that few possess the convenience of a bath-tub. Among the masses of our people a Saturday-night wash may or may not be enforced; when it is, this performance usually takes place in the kitchen, with hot water furnished from the kettle. But in Japan nearly every house among the higher and middle classes possesses the most ample arrangements for hot baths; and even among the poorer classes, in the country as well as in the city, this convenience is not wanting, with the added convenience of public baths everywhere attainable if desired."* Morse provides several instructive sketches of various kinds of bath-tubs in *Japanese Homes and Their Surroundings*, such as the precisely rendered example in No. 190. As to the method of heating the water, he notes: *"Means for applying the heat direct, which is of course the most economical, is attained in various ways. In the common form, a small chamber of copper is introduced at one end near the bottom of the tub,—the mouth having a frame of stone, or of clay or plaster. In this chamber a fire is built, and the water can be brought, if necessary, to the boiling point. Within the tub a few transverse bars prevent the bather from coming in contact with the hot chamber in which the fire is burning."*



No. 190 Wooden Bath-tub
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

In his investigation of Japanese domestic architecture, Morse includes a short but informative section devoted to an equally essential part of the home—the privy. He observes: *"It would be an affectation of false delicacy were no allusion to be made to the privy, which in a Japanese house often receives a share of the artistic workman's attention. . . . In the country the privy is usually a little box-like affair removed from the house, the entrance closed half way up by a swinging door. In the city house of the better class it is at one corner of the house, usually at the end of the verandah, and sometimes there are two at diagonal corners. The privy generally has two compartments,—the first one having a wooden or porcelain urinal; the latter form being called* asagaowa, *as it is supposed to resemble the flower of the morn-*

ing glory, . . . The wooden ones are often filled with branches of spruce, which are frequently replenished. The inner compartment has a rectangular opening cut in the floor, and in the better class of privies this is provided with a cover having a long wooden handle. The wood-work about this opening is sometimes lacquered. Straw sandals or wooden clogs are often provided to be worn in this place (No. 191). The interior of these apartments is usually simple, though sometimes presenting marvels of cabinet-work.



No. 191 Interior of a Japanese Privy
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

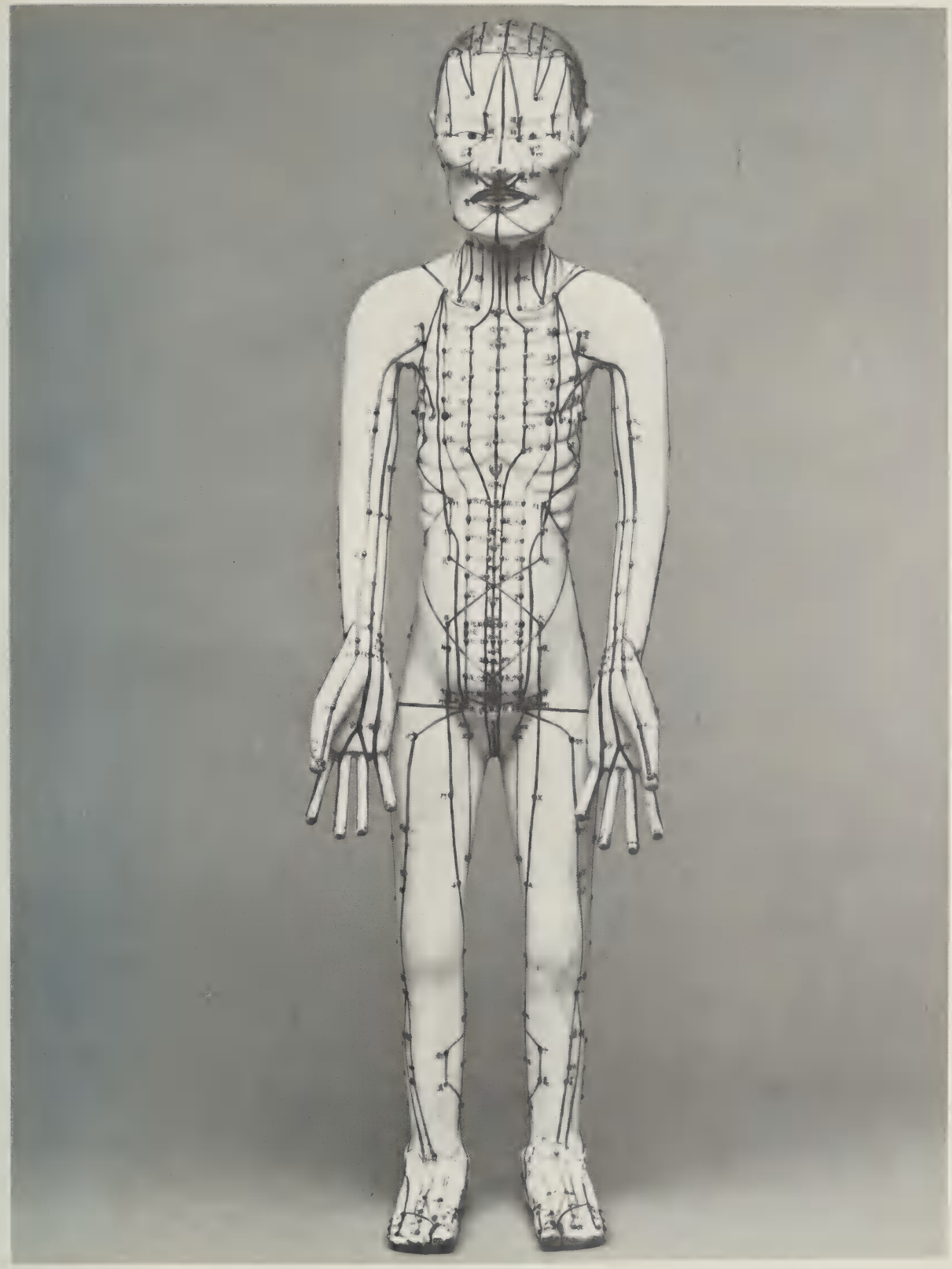
Much skill and taste are often displayed in the approaches and exterior finish of these places. . . . In No. 192 is shown the privy of a merchant in Asakusa, Tokio. The door was a beautiful example of cabinet-work, with designs inlaid with wood of different colors. The interior of this place was also beautifully finished and scrupulously clean. The receptacle in the privy consists of a half of an oil barrel, or a large earthen vessel, sunk in the ground, with convenient access to it from the outside. This is emptied every few days by men who have their regular routes; and as an illustration of the value of this material for agricultural purposes, I was told that in Hiroshima in the renting of poorer tenement houses, if three persons occupied a room together the sewage paid the rent of one, and if five occupied the same room no rent was charged!"

The Peabody Museum collections include a diverse array of objects that relate to traditional Japanese medicinal or hygienic practices. Before the Meiji Period, Japanese medicine was based almost exclusively on practices and pharmacopoeial materials introduced from China. Chinese elixirs, balms and drugs, known generically as *Kampōyaku* ("Chinese Medicine") were

No. 192 Privy of a Merchant from Asakusa, Tokyo
Sketch from Japanese Homes and Their Surroundings, *E. S. Morse*

widely used until the introduction of Western medicine, and retain a certain popularity in treating some kinds of ailments to the present day. Acupuncture was widely practiced, and a fine model showing the carefully calculated locations where needles were inserted, is included here (No. 193). Many firms produced "patent medicines" during the Edo Period, and a number of shop signs in the museum's collection advertise these. Among the liveliest is one where *"Kumanoi-kiga-gan"* ("Bear's Gall Wood Fragrance Pills"), a concoction for stomach disorders, was sold (No. 194). The symbolism here relates to the Japanese saying *"Oni ni kanabō"* ("A demon with an iron club"), which signifies strength and aptness—the implication here being the effectiveness of the medicine.

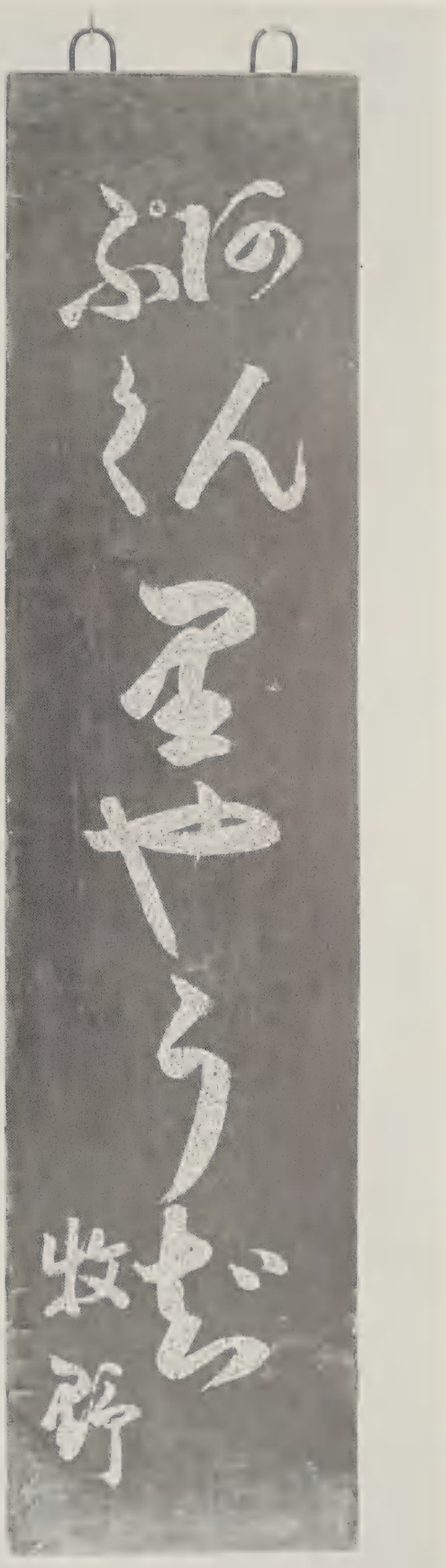
Among the various kinds of personal services available in Japan were the masseurs.



No. 193 Acupuncture Model
Paint and gesso over wood, height 65 cms.
Purchased, 1937

*No. 194 Shop Sign for a Store Selling a "Patent Medicine" for Stomach Ailments known as "*Kumanoi-kiga-gan*"*
Lacquer and pigments over wood, height 83 cms.
Billings Fund, 1914

Morse availed himself of the beneficial services of these people on a number of occasions, and notes: *"At times, night and day, you hear a plaintive sort of shrill whistle. This sound is made by blind men and women who go about the streets to advertise their calling, which is that of masseurs. You call one in, and for half an hour or more the masseur will hammer, pinch, rub, and maul you in such a way that when the work is finished you feel like a new man, and for this delight you pay the sum of four cents! Thousands and thousands of the blind throughout the Empire earn their living in this way. They go to a regular school and are taught the proper methods of massage. These unfortunate people have been rendered blind by smallpox, but since the common sense of the nation saw the merits of vaccination and promptly adopted it this loathsome disease has been banished forever from this country."* On another occasion he had a discussion with one of these men: *". . . I called in a blind* amma, *as he is called, to knead, rub, and pound me. . . . I asked him if he thought the advent of the foreigner was a good thing and he answered with animation, "Yes"; and added, "If he had come twenty-five years before, I and thousands of others would not have been blind." . . . I asked him if he could tell the difference between a foreigner and a Japanese if they were dressed the same, and he promptly said, "Yes; the foreigner has much bigger feet." But suppose the foreigner had small feet? "Their toes come together," he said, "and the foot is narrower in front." . . . In rubbing they have a curious, spasmodic jump of the fingers, making movement not unlike that made by the dentist's mechanical filler."* The shop sign shown in No. 195 advertises the services of one of the many kinds of massage available, "Abdominal Massage Treatment," performed by a man named Makino.



No. 195 Sign for a Specialist in Abdominal Massage Treatments named Makino
Brown lacquer over wood, characters inlaid in mother-of-pearl
height 108.8 cms.
Billings Fund, 1932

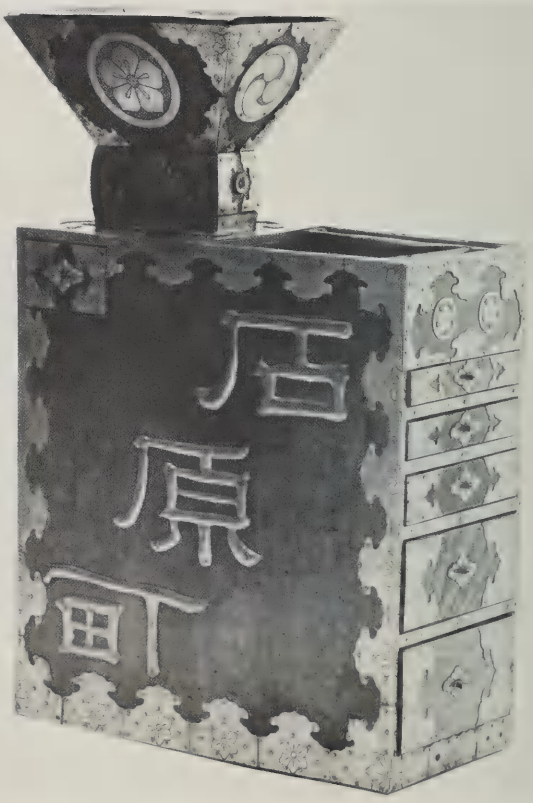
No. 196 *Worker's Jacket and Pants, Worn by an Employee of the American Trading Company ("Amtraco"), Kobe, ca. 1880*
Cotton, indigo-blue dyed, jacket length 88 cms.
Gift of Mr. Gordon Bennet, 1973

No. 197 *Worker's Jacket, Worn by an Employee of the Mitsubishi Company, Tokyo Warehouse Division, Osaka Branch, ca. 1900*
Cotton, indigo-blue dyed, length 93 cms.
Billings Fund, 1913

No. 198 Bamboo Sandals for Use in the Tea Ceremony
Length 23 cms.
Gift of E. S. Morse

No. 199 Straw Boots
Length 17 cms.
Gift of Dr. C. G. Weld

No. 200 Storm Hat of Broom-straw
Length 64 cms.
Gift of Robert Rayner, 1886



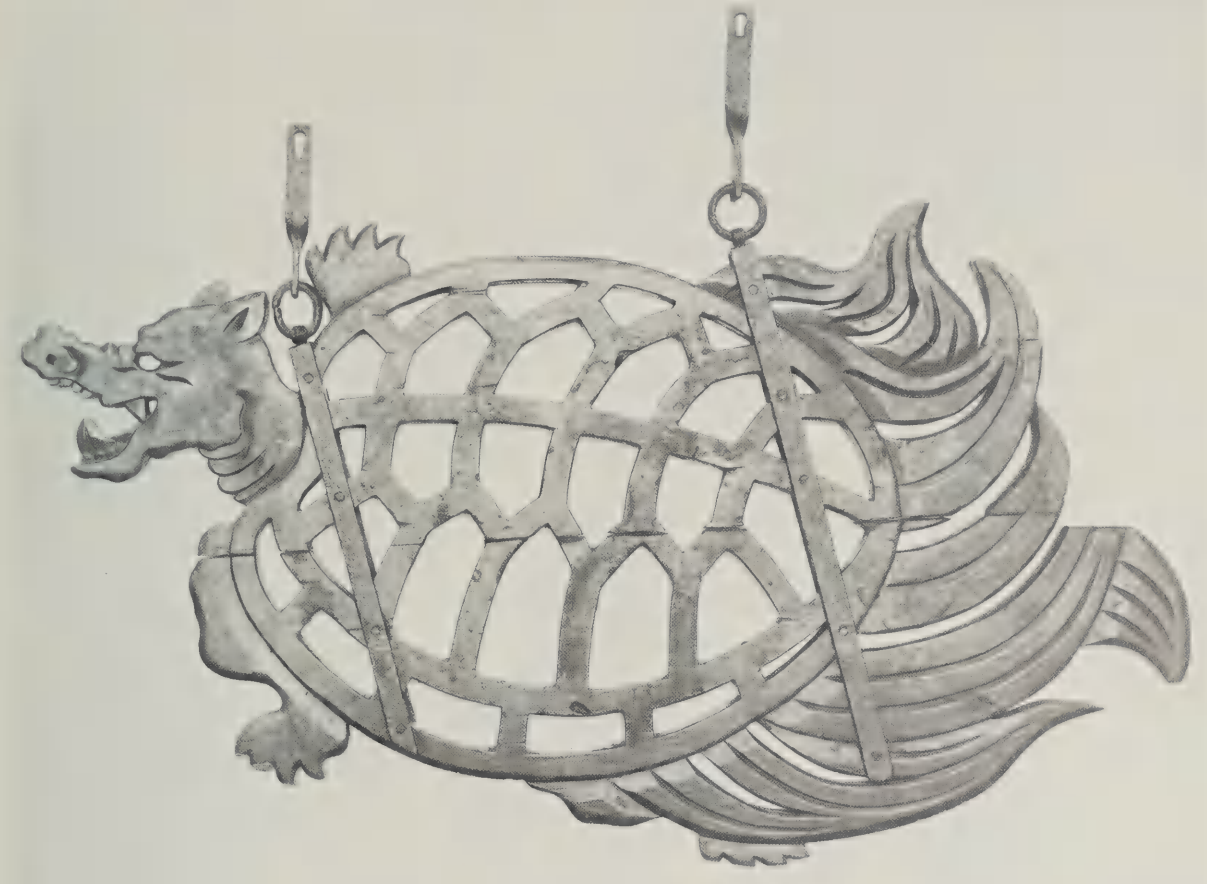
No. 201 Barber's Portable Box with Name "Ishihara-cho"
Quincewood with punched and embossed brass fittings, height 50 cms.
Purchased, 1958

No. 202 "Kanzashi" *("Hair Pins")*
Ivory, fabric, wire and glass beads, lengths 14-18.5 cms.
Gifts of E. S. Morse and Mrs. Russell Robb

No. 203 *Spectacles and Case*
Tortoise shell, glass; cotton fabric over cardboard
Length of case 11.5 cms.
Acquired by E. S. Morse

No. 204 Shop Sign for a Maker of Medicine for Arthritis
Lacquer and paint over wood, brass and iron fittings, height 160 cms.
Billings Fund, 1913

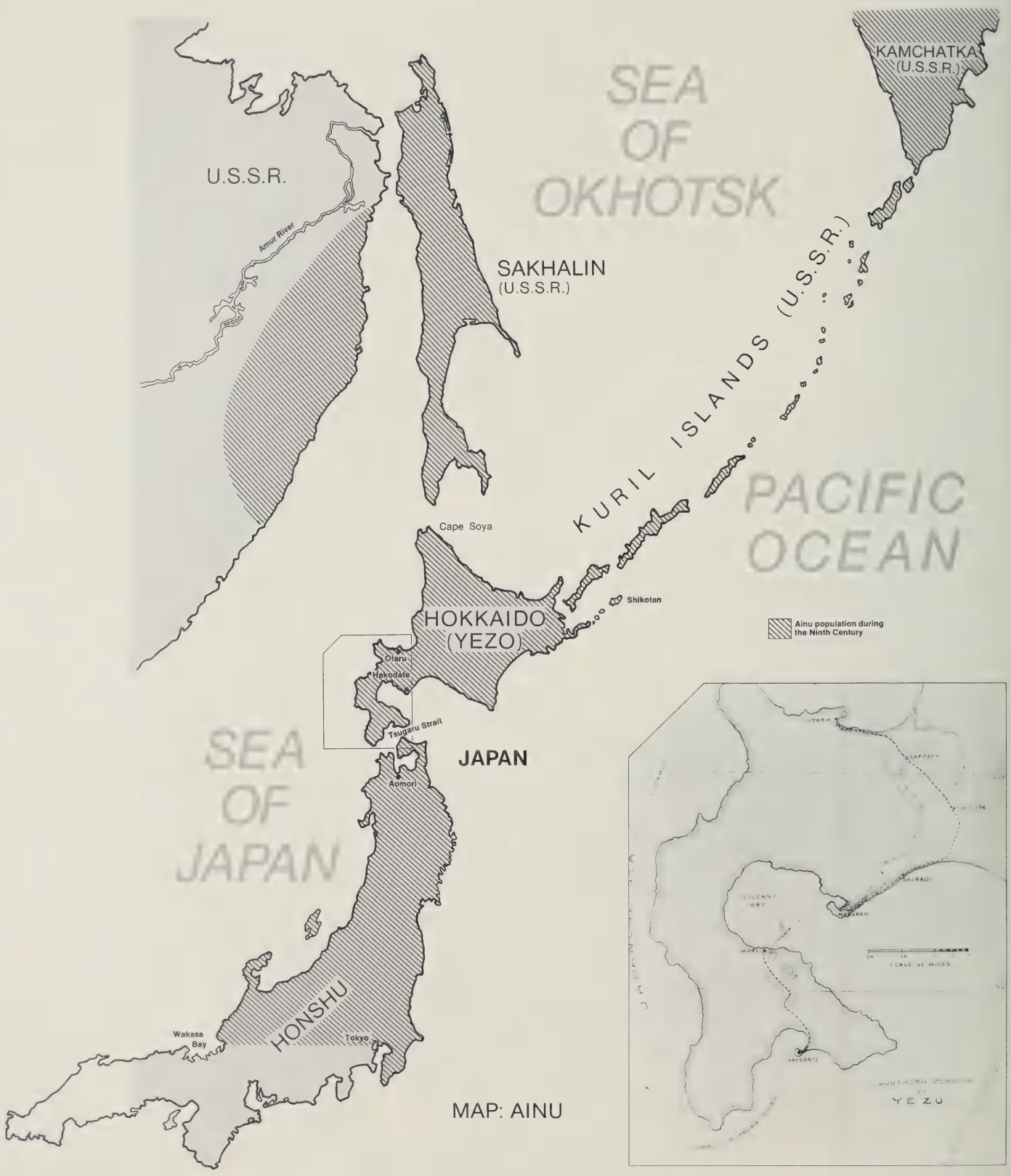
No. 205 Shop Sign for a Pharmacy Specializing in Medicines for Skin Afflictions, such as Burns, Ringworm, Frostbite, and Wounds
Lacquer and paint over wood, iron fittings, height 131.3 cms.
Billings Fund, 1932



No. 206 *Shop Sign for A Druggist*
The tortoise is a traditional symbol of longevity, and its great age is shown by the accumulated sea moss that trails behind it
Lacquer over wood, iron fittings, height 82 cms.
Gift of the "Six Friends", 1916

No. 207 *Pair of Rollers for Use in Massage*
Wood, length 15 cms.
Acquired by E. S. Morse, 1882

No. 208 "Tenugui" *("Bath Towels")*
Cotton, stencil-dyed
Lengths 90-95 cms.
Gift of Dr. Harris Kennedy, 1933


KAMCHATKA
(U.S.S.R.)
SEA
OF
OKHOTSK
U.S.S.R.
Amur River
SAKHALIN
(U.S.S.R.)
KURIL ISLANDS (U.S.S.R.)
PACIFIC
OCEAN
Cape Soya
Shikotan
HOKKAIDO
(YEZO)
Ainu population during
the Ninth Century
Otaru
Hakodate
Tsugaru Strait
SEA
OF
JAPAN
JAPAN
Aomori
HONSHU
Wakasa
Bay
Tokyo
MAP: AINU
SCALE OF MILES
YEZO

7. Ainu Arts and Artifacts

The aboriginal inhabitants of Hokkaido, the Ainu, whose traditional way of life was based on hunting and food-gathering, are known to have once inhabited extensive areas throughout Japan, Southern Sakhalin, the Kuril Islands and Southern Kamchatka. They may also, at one time, have occupied areas in Northern Sakhalin and the Lower Amur region.

Japanese records of the eighth and ninth centuries place the southern boundary of the Ainu at about Tokyo Bay on the Pacific and Wakasa Bay on the Sea of Japan (see map), and indicate a period of almost continuous conflict between the Ainu and the advancing Japanese. This conflict, caused by the pressure of Japanese expansion, resulted in the gradual displacement of the Ainu, who slowly retreated to the north. Northern Honshu was not entirely "pacified" until the end of the twelfth century, however, leaving Hokkaido as the last Ainu stronghold, a circumstance that did not change until the 19th Century, when it was settled by Japanese immigrants.

Although there is some disagreement as to the ethnic composition of the Ainu, most scholars now regard them as Caucasian stock, citing characteristics such as abundant body hair, well-developed chin, wavy hair, and frequent absence of the epicanthic fold.

The mystery of the origin of the Ainu is directly related to the problem of the relationship of the Ainu to the prehistoric populations of Japan. The archaeological record makes it fairly certain that the essential aspects of Japanese culture originated in the Yayoi Period when in the second or third century B. C. an invasion or immigration of Mongoloid peoples either from the southwest or from the Asiatic mainland brought to Japan rice cultivation, the use of bronze, and a distinctive new pottery type. This new pottery replaced the then existing type known as Jomon pottery, which was produced between about 5000 B. C. and 200 B. C., and somewhat later in certain regions. The question that has been debated for nearly a century is whether or not the people of the Jomon Period are the ancestors of the Ainu. If so, then the conflict recorded in the eighth and ninth centuries between the Japanese and Ainu would appear to be a continuation of a conflict that began over a milennium earlier.

The characteristic Ainu practices of hunting and food-gathering, as well as the use of stone tools, pottery, and semi-subterranean pit houses show similarities to features of the Jomon Period, and according to the archaeologist J. E. Kidder, Jr., "The late Jomon in the north must have been largely an Ainu product, though there is considerable argument as to the extent of their role in the bulk of Jomon prehistory. In this case, however, historical records, foreign references and accounts, internal conditions and the almost perpetual stone age state that the north remains in, all point toward one dominant group such as the Ainu."

As a hunting and food-gathering people, the Ainu were heavily dependent on fishing and marine mammal hunting as well as terrestrial game such as bear and deer. The seasonal migrations of fish, particularly salmon and trout, were exploited so that large quantities captured in the spring and fall were used to offset the lean months when game was scarce. This strong dependence on the resources supplied by nature necessitated an extensive knowledge of the plant and animal species available to them. Among hunters and food-gatherers, this bond of dependence frequently results in the elaboration of myths and the generation of religious concepts relating to those species. Thus, the Ainu believe that all plants and animals as well as man-made objects have a soul, and from among these a certain number have been chosen and deified. The chief object of religious veneration is the bear, which the Ainu, like many other northern Asiatic peoples, look upon as a deity closely connected to their welfare, and around which they have evolved an elaborate ceremony. For the ceremony, a young cub was captured in the spring when it was emerging from hibernation. It was kept in the house until it became too large or dangerous, whereupon it was moved to a special structure near the house. If, when captured, it was too young to have been weaned, an Ainu woman who was nursing a child of her own would also nurse the cub until it could subsist on solid

food. In the fall of the year, when the bear was about a year and a half old, the family hosted a ceremony which in addition to elaborate preparations, feasting and dancing, involved the ritual killing and eating of the bear. The purpose of the ceremony was to release the bear's soul so that it could go back to the mountains, renew its life there, and communicate to the other bears the attitude of veneration and concern held toward them by the Ainu, and thus insure a plentiful supply of food for the future.

The Ainu made use of animal, fish and bird skins as well as natural fibers in the manufacture of clothing, and it is thought that before the introduction of Japanese cloth and yarns, the sewing of skin garments was more prevalent. The cut of coats made of skins differs markedly from that of the Japanese kimono-type elm bark robes (No. 209), supporting the assumption that skin garments reflect a costume type that predates the introduction of weaving. Thus, the skin garments characteristically have a tapered bodice, flared skirt, and shorter hem (No. 210).

No. 210 Salmon Skin Coat
Length 92 cms.
Acquired for the Peabody Museum in the vicinity of Esashi, Hokkaido, by Mrs. Mabel Loomis Todd on the Amherst College Expedition to view the solar eclipse of 1896

No. 209 Ainu Robe
Woven elm bark with Japanese trade coton appliqué embroidered over with chain-stitch
Gift of the "Six Friends" (E. S. Morse, W. S. Bigelow, C. S. Rea, W. C. Endicott, P. Lowell, R. Osgood), 1916

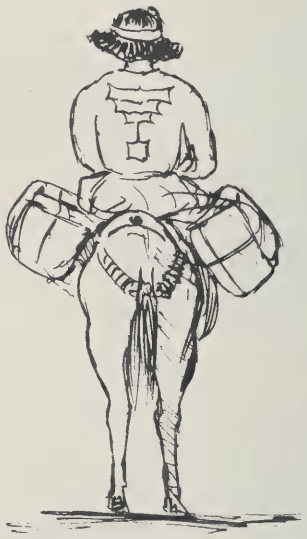
Embroidery patterns which are peculiar to fish skin clothing may be related to earlier design features in the same way that skin robes may be an earlier form of robe than those that are woven. Small fish skin patches cover the openings left in skins by the removal of the dorsal fin, and couching-stitch embroidery expands on the theme suggested by their placement and type. Further design elements are introduced by the careful selection of fish skins so that skins of differing tones are juxtaposed in the garment. A time-consuming and difficult process, the manufacture of a typical fish skin coat required approximately 50 large trout or salmon skins.

Traditionally, the manufacture of textiles was the exclusive domain of women. Whether twined or woven they were made of local materials on simple hand looms. Garments for daily wear were woven principally of elm bark which had been soaked in water and then chewed before being twisted into strands and woven on the back-strap loom. Approximately eight pieces of fabric were seamed together to form one robe, to which small rectangular pieces of Japanese trade cloth were sewed, forming decorative geometric designs around the collar and front and back. Chain stitching and/or couching-stitch were also used to highlight the applique patterns.

Articles such as mats, bags and leggings were often woven by a technique known as twining. The Ainu method of twining is unusual in that common weaving technology utilizing a passive warp and an active weft is reversed. In the Ainu process, long strands of twisted fibers were hung over a beam supported by two uprights. The strands, weighted on both ends by stones, were thrown back and forth over the beam to secure the weft of individual bullrush strips laid across it. Patterns were created by incorporating into the twining process dyed bark strips which were laid on top of the rush wefts and then catching them under the active warps. Through this technique the weaver created the dichromatic geometric designs which characterize all Ainu textiles.

Morse's Expedition to Hokkaido, July 16-August 19, 1878.

In July of 1878 Morse left Yokohama on a steamer for Yezo (also "Ezo"), the northern Japanese island now known as Hokkaido (See map). His intention was to do some cold-water dredging for brachiopods in the Straits of Tsugaru and other areas off the coast, and during his time in Hokkaido, to avail himself of the opportunity to visit the mysterious Ainu. His trip took him north to Hakodate, where he made his first landing, and then to Otaru and Sapporo on the west coast. He was able to observe his first Ainu on this stretch of the journey, and to make notes on Ainu arrow-release methods, and also to collect some prehistoric pottery sherds from shell mounds near Otaru. From Sapporo, Morse and his party crossed overland on horseback to Muroran. *"Our caravan was led by an Ainu, a large, black-whiskered, hairy fellow with a mop of hair on his head a foot in diameter (No. 211). A cloth was tied around his head to keep his hair in place and a peculiar Ainu design was wrought in the back of his garment. He sat cross-legged on his saddle and looked like a giant."* On the



No. 211 Ainu on Horseback
Sketch from Japan Day by Day, *E. S. Morse*

way they stopped at the Ainu village of Shiraoi where Morse made most of his Ainu sketches. The party consisted of Professor Yatabe (Botanist), Mr. Sasaki and Morse's assistant, Mr. Tanada. The Ainu villages Morse describes consisted of thirty or forty houses. "Most of the houses were surrounded by a high fence composed of bundles of sedge or reeds. The roof is often thatched in such a way as to form a series of horizontal ridges. . . . The neatness and general picturesqueness of the house disappear when you enter: hard damp ground beneath, blackened rafters above, and a strong fish smell pervading everything (No. 212)."

No. 212 Interior of an Ainu House
Sketch from Japan Day by Day, *E. S. Morse*

Throughout the trip, Morse made sketches and notes pertaining to zoology, geography and ethnology and once while hunting for land snails near Sapporo his exuberant activities almost resulted in calamity. "In hunting for these creatures one has to get down on his hands and knees and crawl about overturning layers of damp leaves and bits of bark." He had been searching for some time when he heard a number of shouts, as if of warning. Several Ainu were gesticulating at him and one "pulled his bow and arrow in a series of jerks in what seemed to be a threatening manner." At first Morse thought that the Ainu suspected that he was hunting for their graves, and being aware that their arrows were tipped with aconite poison, he reluctantly got up and walked away. Later he learned that the Ainu were not threatening him but instead were attempting to warn him of a concealed trip bow which had been set for a bear. "They were afraid of coming nearer, not knowing quite where the string was that would spring the bow; and I on my hands and knees crawling about like a bear with the hidden trap ready to shoot me!"

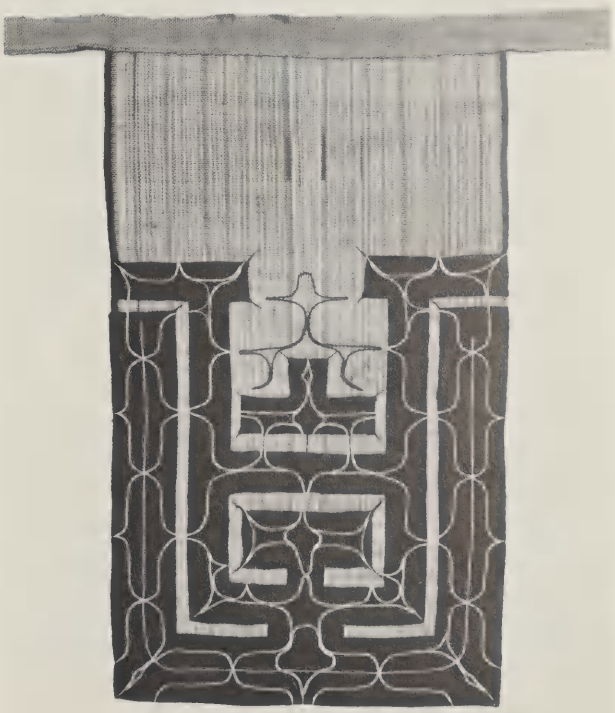
Morse collected Ainu materials throughout the trip, and later when back in Tokyo, his interest in the subject resulted in further acquisitions for the Peabody Museum as well as the Tokyo Educational Museum, for whom he was also collecting. A salmon boot he illustrates in *Japan Day by Day* appears to be the same as one of a pair given to the Peabody Museum by Mr. Miyabe in 1882 (No. 213). The boots are from the Ishikari River region and are still stuffed with cotton grass, used to keep the feet warm.

In addition to the Ainu specimens collected by Morse, there was a second group of 31 objects collected in Hokkaido by Mrs. Mabel Loomis Todd, who was a member of the 1896 Amherst College expedition that went to Hokkaido to view an eclipse of the sun. Mrs. Todd assembled the collection at the request of Morse, who gave her fifty dollars to collect items of daily use from the north coast of Hokkaido in the vicinity of Esashi, where the base camp of the expedition was located. In a letter written back to Morse, she expressed her regret that he could not have accompanied her to Japan, and she notes cryptically: "I must look upon the great catalogue as a very active enemy." The catalogue she refers to is, of course, Morse's monumental Catalogue of Japanese Pottery, which was a number of years in preparation, and did not finally appear until 1901.

No. 213 Ainu Salmon Skin Boot (one of a pair)
From the Ishikari River Region, Hokkaido
Height 37 cms.
Gift of Mr. Miyabe, 1882

No. 214 *An Ainu Dwelling with Bear Skulls Displayed, ca. 1878*
Photographic Archives, Peabody Museum of Salem
Gift of Mrs. Russell Robb, 1918

No. 215 *Ainu Robe*
Woven elm bark with Japanese trade cotton appliqué embroidered over with chain-stitch. Acquired for the Peabody Museum in the vicinity of Esashi, Hokkaido, by Mrs. Mabel Loomis Todd on the Amherst College Expedition to view the solar eclipse of 1896

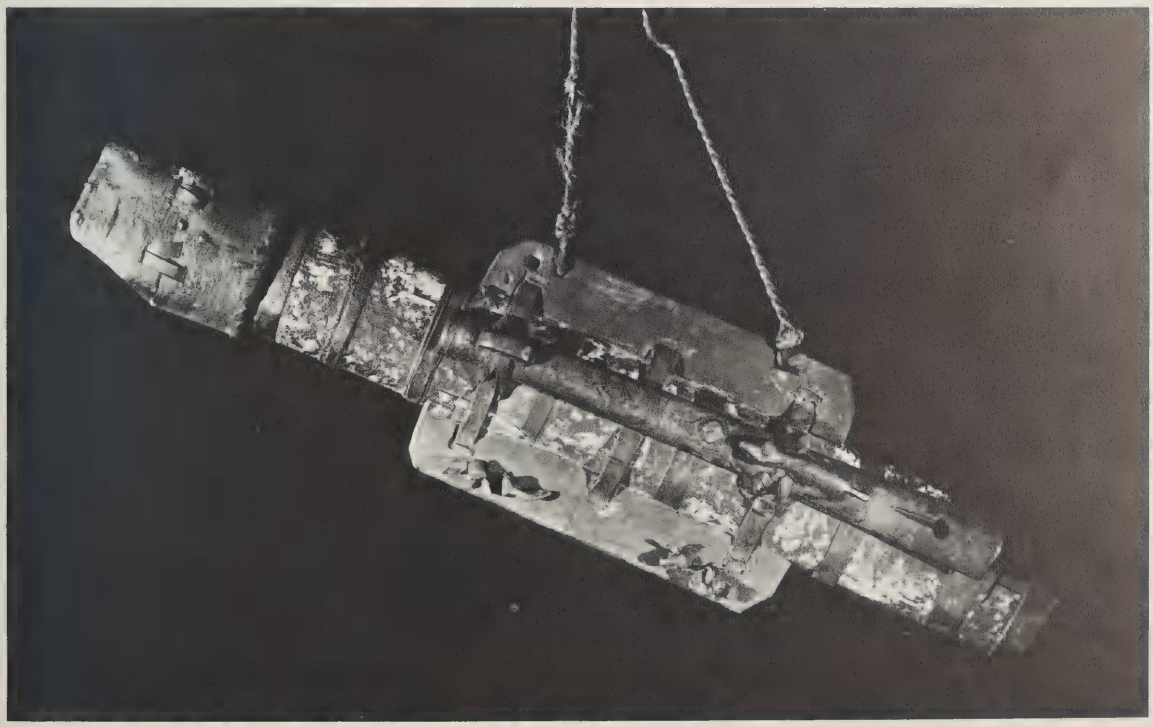


No. 216 *Ainu Apron*
Woven of elm bark; appliquéd with Japanese trade cotton; chain-stitched white and brown embroidery, height 34.5 cms.
Gift of Matsuki Bunkio, 1896

No. 217 Ainu Woman's Necklace
Silver pendant on wood backing; glass beads; "Sakhalin trade beads"; length overall 54.5 cms.
Collected by Mrs. Mabel Loomis Todd in 1896, Gift to the Museum, 1897

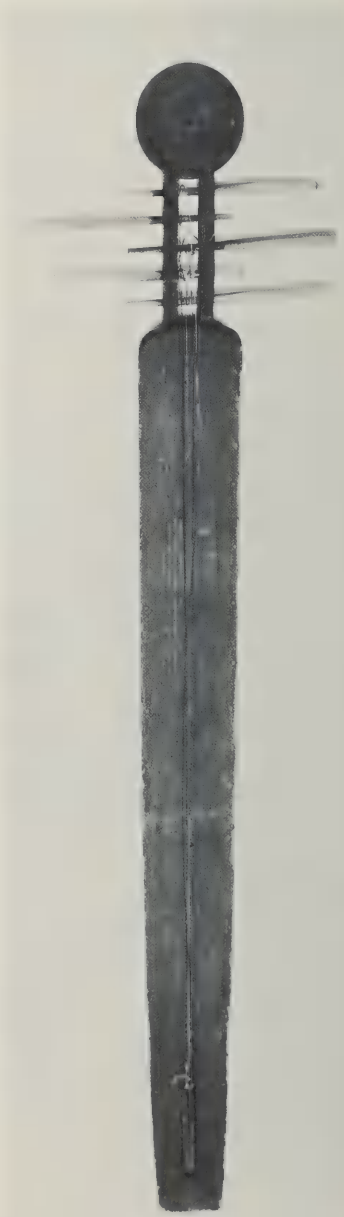
No. 218 Knife and Sheath (from Hokkaido)
Iron knife blade ground on one edge only; sheath of wood with intricate incising on both sides; toggle of carved bone
Length of sheath 30.4 cms.
Museum Purchase

No. 219 Ainu Arrows

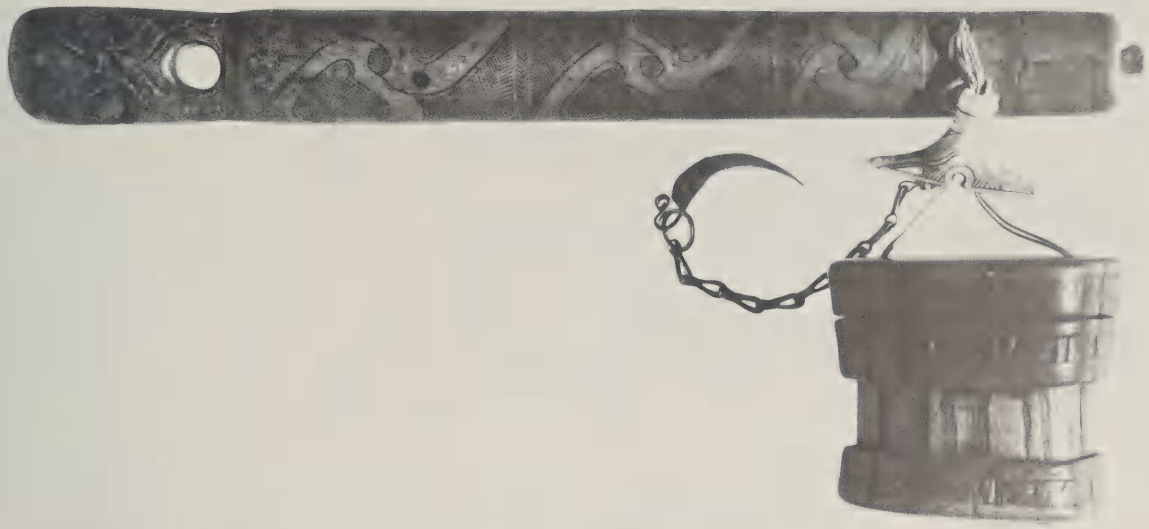


No. 220 Quiver (from Hokkaido)
Wood, with reinforcing bands of bark; decorative pipe-holder with carved bear effigy attached
Museum Purchase

No. 221 *An Ainu Assembly, by Yoshizawa Byōzan (?), dated "Autumn, 1871"*
Kakemono *164 x 68 cms.*
Gift of E. S. Morse



No. 222 "Tonkor" *(five-stringed musical instrument)*
Length 97.5 cms.
Acquired by Mrs. Mabel Loomis Todd at Esashi, Hokkaido, 1896
Gift from Mrs. Todd in 1897

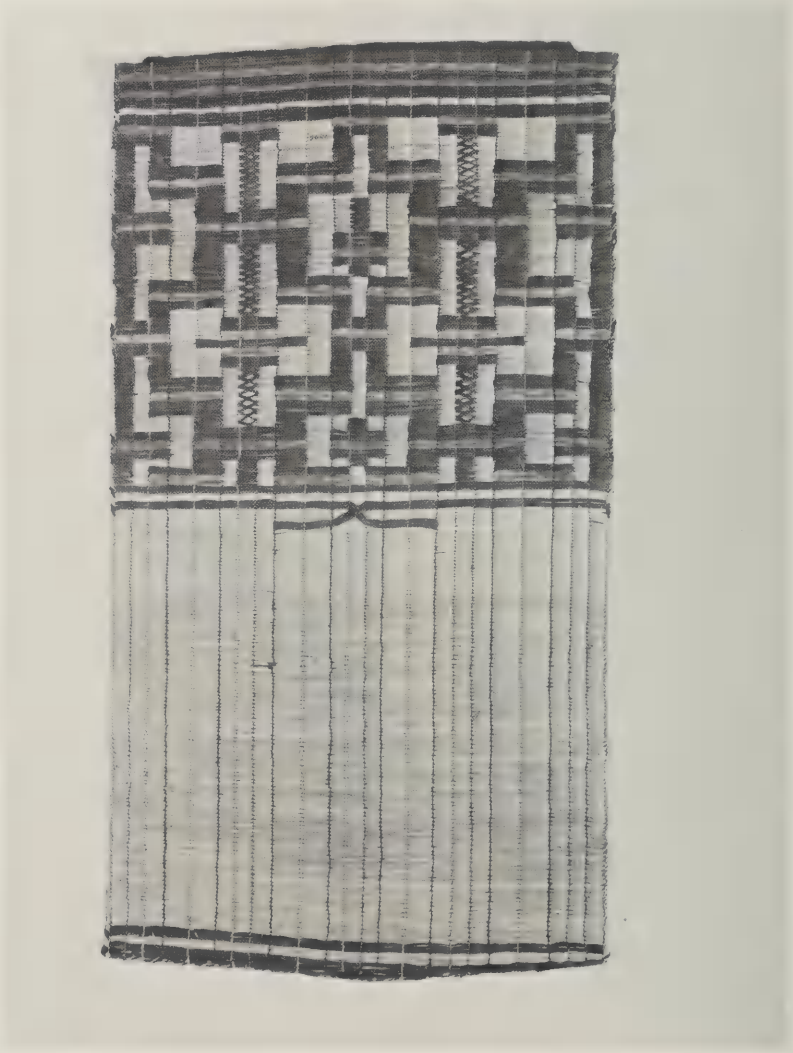


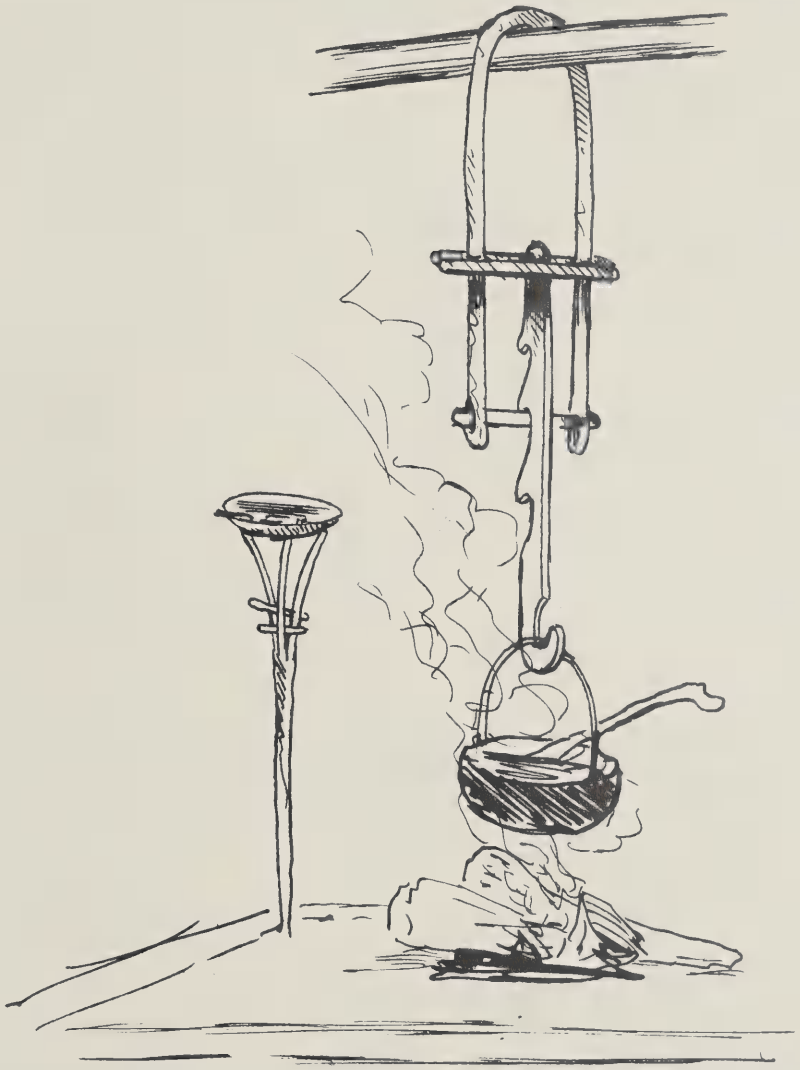
No. 223 *Ainu Smoking Kit*
Length 38.5 cms.
Acquired by Mrs. Mabel Loomis Todd at Esashi, Hokkaido, in 1896
Gift from Mrs. Todd, 1897

No. 224 *Ainu "Moustache Sticks" (used to raise the moustache while drinking)*
(a) Carved with a bear and other designs, 33.5 cms. Acquired by E. S. Morse, 1882
(b) Carved with decorative designs, 37.5 cms.
(c) Carved with a swordfish and decorative designs, 35.8 cms. Gift of H. Takamine
(d) Carved with a hook-like projection and decorative designs, 35.8 cms., from Shiraoi, Hokkaido. Gift of Frederick Johnson, 1925

No. 225 Ainu Tray and Bowls
Wooden tray collected by Mrs. Mabel Loomis Todd in Hokkaido, 1896, and presented to the Peabody Museum in 1897, 23.3 x 24.4 cms.

No. 226 Rush Mat, Woven by the "Twining Process"
119.5 x 65 cms.
Acquired by Mrs. Mabel Loomis Todd in Hokkaido, 1896; Gift of Mrs. Todd, 1897






SOUTH KOREA
TSUSHIMA
HONSHU
SHIKOKU
Kumamoto
Nagasaki
KYUSHU
JAPAN
Kagoshima
KAGOSHIMA
(SATSUMA)
Tanegashima
EAST CHINA SEA
CHINA
RYUKYU ISLANDS
OKINAWA
Shuri
Naha
Ch'uang chou
(Okinawan trading depot established in 1439)
MIYAKO
TAIWAN
PACIFIC OCEAN

MAP: OKINAWA

8. Okinawan Arts and Crafts

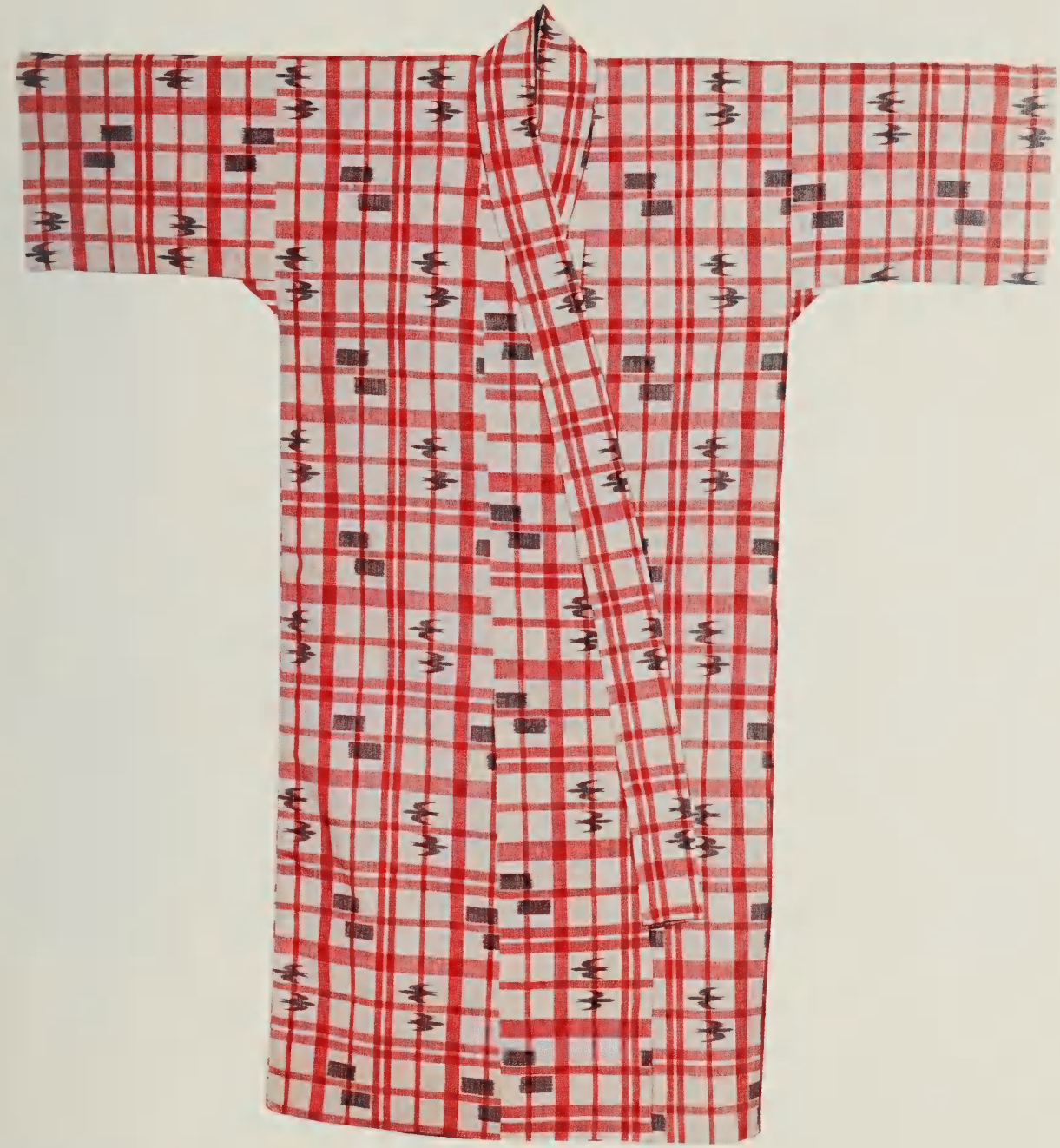
Okinawa is a long, rather narrow island situated roughly in the middle of that attenuated chain of islands which stretches in a gentle curve from Kyushu southwest almost to Taiwan known as the Ryukyu Archipelago (see map). From the earliest times, this conveniently situated archipelago served as a handy bridge for peoples moving between the Japanese islands to the north, and Taiwan and the Chinese mainland to the south, and even beyond, to Southeast Asia and the islands of present-day Indonesia. Thus, prehistoric sites containing relics of the ancient Jomon culture have come to light on Okinawa, and there are also evidences of a "Yaeyama" culture with southern affiliations. Although the early history of Okinawa remains a pastiche of myth and supposition, it does come into sharper focus during the fourteenth century, when the Court of Chuzan, strongest of the three "kingdoms" on the island, assumed a tributary relationship with China that was to continue for more than five hundred years. The Chuzan court also established formal relations with Korea and Japan, and developed into a flourishing entrepot for a maritime trade network that stretched from these countries on to Java, Sumatra and the Malaccas, where Okinawan merchants exchanged goods with men from the distant western ends of Asia. Ceramics, fine textiles, medicinal herbs, coins from China, even exotic birds and animals from China and beyond were brought to the Chuzan city of Naha, and then transshipped on to Korea or Japan. In turn, Japanese swords, lacquerware, fans and folding screens were brought back, and subsequently sent on to China and the more distant parts of the East Indies. Thus, the Okinawans were not only themselves subject to the influence of the diverse cultures linked by their maritime activities, but also served the important role of introducing many of the distinctive products of one nation to others situated great distances apart.

Although the basic structure of their language and traditional society provides reliable evidence that the Okinawans were closely akin to and strongly influenced by the Japanese in early times, their traditional culture was nevertheless distinctive, and also combined features drawn from China and the southern countries they came into contact with. Thus, for instance, the stylized hat or turban *("hachimaki")* used by Okinawan gentry up until recent times (No. 227) is presumed to have been introduced from the South China Coast or Malaysia. This distinctive headgear was reserved for the higher officers at court where rank was indicated by the manner of folding and winding the fabric as well as the distinctive color. In addition, the distinctive manner of arranging the coiffure in a topknot, through which one or more long pins (No. 228) were thrust also has cultural affiliations with the south. The long pins were made of various materials and served as an indication of the status of the wearer.

China's suzerainty over Okinawa was essentially ceremonial in nature, and the Okinawans participated in the "tribute system" which acknowledged their fealty to the Chinese court under the Ming emperors. In 1421, when the three regions of Okinawa finally were united under the control of the Chuzan "kingdom," the Ming Court awarded the king with the title *"Liu Ch'iu Wang"* ("King of the Ryukyus"), and in 1439 a special trading depot was established at Ch'uang chou in Fukien Province in order to channel all Okinawan trade through a single port. In contrast to the benevolent, ceremonial authority exercised over the Okinawans by China, the Japanese exerted a more direct and pervasive cultural and political influence on Okinawa from their southernmost Province of Satsuma, which controlled the Okinawan trade with other sections of Japan. In 1609, Japanese from Satsuma actually invaded Okinawa, captured the king, and established a de facto political control which grew over the following centuries, finally culminating in the establishment of Okinawa as a Japanese prefecture in 1879.

In order to produce appropriate tribute gifts for the Chinese Court, and satisfy the demands of the Japanese overlords from Satsuma, the Okinawan Court encouraged the making of fine textiles over the centuries through official patronage, and this resulted in the production of superb fabrics of great beauty and technical refinement. Many of

No. 229 Woman's Winter Kimono, "Bingata" ("Stencil dyed")
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld



No. 233 Kimono, Weft Ikat Weave, cotton, red and white
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld

No. 227 "Hachimaki"
This type of silk hat was used up until modern times by Court officers. Rank was indicated by the manner of folding, as well as the color. Hats of this form are found nowhere in Japan and are believed to have been introduced into Okinawa from Malaysia or the South China Coast
Silk, dyed yellow, length 21 cms.
Collected by S. Tejima, Director of the Tokyo Educational Museum, and presented to Prof. Morse in 1886

the basic techniques for making textiles were introduced from Indonesia and China, but in Okinawa these were brought to new levels of aesthetic and creative accomplishment, developing in some cases into varieties which were more complex and time-consuming in nature than comparable examples anywhere in the world.

Stencil dyeing, called *"katachiki"* in Okinawan, utilizes a rice paste resist technique introduced from Indonesia. The Okinawans are particularly skilled at this technique, and produce pieces of the greatest beauty (Nos. 229 and 230). The stencils, made from paper-mulberry fibers strengthened with persimmon tannin, are used to apply both the dye and the resist and several stencils, used in sequence, are necessary to complete the process. Rice paste is spread over the stencil, leaving the design on the fabric. After drying, the rice paste designs will exclude the dye. Another way of resist dyeing with rice paste is called *"nuifichi."* In this technique the paste is squeezed from a

tube directly onto the fabric, and this is the favored way of dyeing the handy, all-purpose wrapping cloths known as *"uchikui"* (or *"furoshiki"* in Japanese) (No. 231).

No. 228 Okinawan Hairpins
Both men and women wore their hair in a topknot through which they placed one or more long pins. These were made in a variety of materials and styles and indicated the status and sex of the individual. Tortoise shell, wood and brass, the longest 28 cms.
2, 3, 5, 7 collected by S. Tejima of the Tokyo Educational Museum and presented to Prof. Morse in 1886
1, 4, 6, 8 collected by Langdon Warner in 1909, and purchased for the Museum by Dr. C. G. Weld

"Ichiri" (known as *"kasuri"* in Japan) is the Okinawan word used to describe the technique more widely known by its Indonesian term, "ikat." Ikat requires that measured sections of yarn be dyed prior to weaving the textile, anticipating the desired pattern. The measured sections of the yarn are wrapped with banana leaves which prevent the dye from penetrating, leaving these areas undyed or in their original colored state. If only the warp yarns have been thus treated, the dyed areas will appear as vertical patches of color. If the weft yarns have been similarly dyed, then the patterned areas will appear horizontally. If the warp and the weft come together to form intersecting patterns, "double ikat" (No. 232) is achieved; "compound ikat" occurs when there is both warp and weft ikat in the same fabric, but they do not intersect. Double ikat occurs in only three areas of the world and it is only in Japan and Okinawa that one finds double and compound ikat in the same fabric. By adjusting the individual threads on the warp, or by controlling the weft threads in relation to each other, the simple patterns can be made to form more complicated ones. Unavoidable variations in the alignment and dyeing of the threads cause ikat patterns to have characteristic blurred boundaries in their designs which contribute to their aesthetic appeal (No. 233). Ikat was introduced to Okinawa

No. 231 Bride's Wrapping Cloth, (center detail)
Hand-drawn resist pattern on banana fiber
Collected in 1909 in Okinawa by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld

either through Indonesia or directly from China where it is believed that it originated among certain non-Chinese tribes from southwest China, who in turn passed it on to the Chinese and to Indonesia and India.

Although Morse himself never had the opportunity to visit Okinawa, he did acquire a number of Okinawan ceramics for his collection prior to 1888, but these, and a few other early random acquisitions form a relatively small part of the Okinawan collection in the Peabody Museum, which amounts to a total of 188 objects. Rather, it was primarily through Morse's contacts in Japan and through certain of his collector friends in the United States that the collection grew to its present size. The earliest and most significant part of the collection came from S. Tejima, Director of the Tokyo Educational Museum, who in a letter to Morse mentions 35 objects that were given to the Peabody Museum in 1886; these make up the nucleus of the Okinawan collection.

Later, in 1910, Dr. Charles G. Weld purchased over 60 objects for the museum which had been collected in Okinawa by Langdon Warner, who at the time was an assistant to Okakura Kakuzo, the Curator of the Asiatic Department of the Museum of Fine Arts, Boston. Warner left Kobe on Nov. 2, 1909, and arrived in Naha, Okinawa on the 7th. In his journal entry for the 9th, he notes that he intends to make an ethnological collection for the Peabody Museum at Harvard, but states that if they cannot buy it he will then "let Morse have a chance for Salem." In later entries he describes his purchases, which included 4 hats, 6 (or 8) baskets, a large ornate burial urn (No. 234), and a girl's complete wedding outfit dating from the 17th century, and a chest. In his entry for the 13th, made at Shuri, he notes the acquisition of a woman's large hairpin worn by a member of the lower classes, and a man's hairpin used by a member of the aristocracy, that had originally been gilded, "but now showed nothing but brass."

*No. 230 "Dance Kimono" "*Bingata*" ("Stencil dyed") Blue background with red, yellow, green and blue floral and water patterns. Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld*

No. 232 Kimono detail showing "Double and Weft Ikat"

Warner's purchases include some of the finest examples of textiles in the collection, and in a letter to Morse in 1910 he describes a rare loom which was the only one of its kind he could obtain. The photograph which he included (No. 235) shows a woman operating the loom. The fact that she had to be summoned from another village to demonstrate how the loom was operated indicates that people capable of working on such looms and of producing fine handmade textiles were already growing scarce.

The contents of Okinawan shell-mounds contain evidence of a very ancient tradition

No. 234 Burial Urn
Pottery, incised and applied relief decoration, height 76 cms.
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld

No. 235 Okinawan Woman Operating a Traditional Loom
Photograph by Langdon Warner, 1909
Photographic Archives, Peabody Museum of Salem

of pottery manufacture there. Excavations at these sites have yielded low-fired unglazed pottery belonging to the early Jomon Period, other examples of which have also come to light on other islands of the archipelago. It was not, however, until the seventeenth century, when three Korean potters were brought from Satsuma to Naha, that the traditions of Okinawan ceramic manufacture were actually founded. Traditional Okinawan pottery is characterized by the use of blue, light brown and green glazes, usually applied with a brush or the fingers. The light brown glaze is distinctive and is made from pulverized coral and rice chaff. Frequently, a design is incised in the clay beforehand, and one or more of the glazes will settle into the depressions during firing, emphasizing the strength of the pattern (No. 236).

No. 236 "Awamori Pot"
Awamori is a fermented beverage made from sweet potatoes
Height 8.5 cms.
Purchased by E. S. Morse prior to 1888, gift to the Museum

Another aspect of traditional Okinawan ceramic production is the large, unglazed burial urns made either in a cylindrical or flat-sided form, with incised and applied relief decoration (No. 234). Traditional Okinawan mortuary custom involves placing the body of the deceased in a large tomb chamber cut into a hillside. On the third anniversary of the death, the tomb is opened and the bones collected and cleaned. They are then placed in a mortuary urn *("Jishigami")*, which is installed on a shelf at the back of the inner chamber of the vault.

The Ryukyu Islands will not support Rhus vernicifera, the tree from which lacquer is made and consequently, the resin used to make lacquerware in Okinawa has traditionally been imported from Japan. It is unclear when the Okinawans first began to produce lacquerware, but a textual reference in a Chinese work does state that in 1427 the Ming Emperor purchased large quantities of lacquer articles from Naha. Various native woods are used to produce the foundation forms for lacquerware. After an appropriate period of seasoning, the wooden forms are given a base coat of camellia oil, pig's blood and blue clay which seals and strengthens the grain. The lacquer is applied in many successive coats to form a thick base, and painted lacquer decor is often added, sometimes with shell or coral inlay or metal details (No. 237). Because lacquer requires a humid, warm atmosphere for proper setting and drying, the climate of Okinawa is perfect for the manufacture of very fine pieces, and Okinawa has a long history of exporting her best lacquer products.

No. 237 Miniature Red Lacquer Cabinet
Shell and soapstone inlay, height 25 cms.
Gift of Dr. C. G. Weld, 1904

No. 238 Kimono detail
Red, white and blue plaid, with Weft Ikat patterns, silk

No. 240 "Awamori Pot"
Blue, green, light brown glazes, height 9.3 cms.
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld

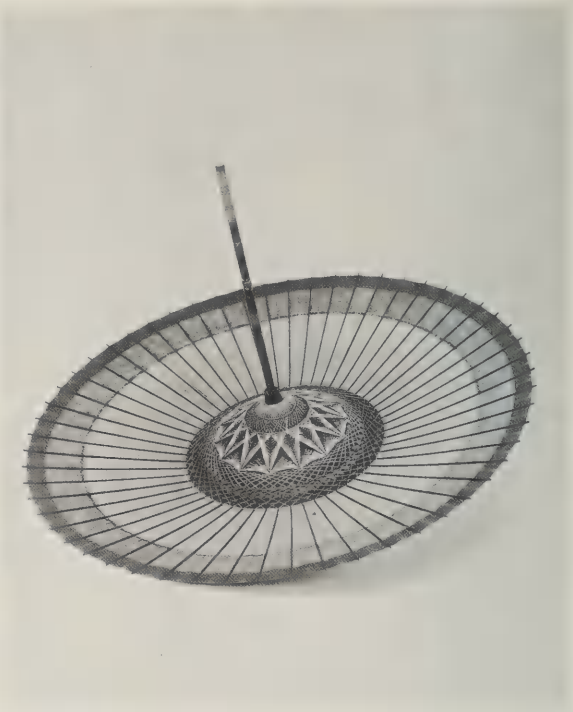
No. 239 Pottery Oil Lamp
Height 12.6 cms.
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld, 1910

No. 241 Water Vessel, from Naha
Dark brown glaze, height 29 cms.
Acquired by E. S. Morse prior to 1888, gift to the Museum

No. 242 Set of Circular Wood Boxes, said to be for "Wedding Gifts"
Largest 36.5 cms. in diameter
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld

No. 243 Carved Lacquer Stand, Perhaps for a Long Gun,
17th Century (?)
Red lacquer
Gift of Dr. C. G. Weld

No. 244 *Straw Hat Worn During Traditional Dancing*
Height 27 cms.
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld



No. 245 *Paper Umbrella*
Diameter 128 cms.
Acquired in Okinawa in 1909 by Langdon Warner, and purchased for the Museum by Dr. C. G. Weld

No. 247 *Water Carrier, Made from "Kuba" Palm Leaf*
Collected by S. Tejima, Director of the Tokyo Educational Museum, and Presented to Prof. Morse in 1886

No. 246 "Sea Goddess", a Tutelary Deity for Fishermen or Sailors (?)
Unglazed grey clay with traces of red and blue pigment, height 19.5 cms.
Collected by Carl W. Sternfelt, ca. 1945, gift to the Museum

Page 787 from Morse's Journal.
All his entries are written on onionskin paper and he spaced his lines so that the writings on the reverse side would not interfere with the reading of the text.

9. Selected Bibliography

A Selected Bibliography of The Writings, Communications, and Lecture Notices of Edward Sylvester Morse

The entries that follow are drawn from the extensive *Bibliography of Edward Sylvester Morse,* compiled by Albert P. Morse (no relative), the Curator of Natural History, Peabody Museum of Salem, in 1927. The fact that the author includes 560 entries and recognizes that the list is nevertheless incomplete provides one with some idea of the prodigious scale of Morse's activities. The entries included here are intended to give the reader a basic familiarity with Prof. Morse's best known writings, particularly those dealing with the Far East and ethnological matters, as well as a sampling of the diversity of his other interests, including representative examples of his contributions to the daily press.

1857

"Helix asteriscus" (description of)
(Communication read February 4, 1857)
Proceedings Boston Society of Natural History, vol. 6.

1858

"Conchological Investigation in Maine"
(Read before the Portland Society of Natural History, January 18)

1859

"Helix milium Morse" (description of)
(Read at meeting of Boston Society of Natural History, February 16, published prob. 1861).

1862

"The Haemal and Neural Regions of Brachiopoda"
(Communication read by S. H. Scudder at meeting of Boston Society of Natural History, April 16, 1862).
Proceedings Boston Society of Natural History, vol. 9.

"Synopsis of the Fluviatile and Terrestrial Mollusca of the State of Maine"
Published by Author, Portland, Maine.

"Observations on the Terrestrial Pulmonifera of Maine, including a Catalogue of all species of terrestrial and fluviatile Mollusca known to inhabit the State"
Journal Portland Society of Natural History, vol. 1, no. 1.

1866

"The Devil-Fish" (A criticism of Victor Hugo's statements in *Toilers of the Sea*)
Portland Transcript, May 12.

1867

"Something about Jelly-fishes"
American Naturalist, vol. 1, July 1867.

"A Mountain Tramp" (Ascent of Black Mt., near Bethel, Maine, with F. W. Putnam)
Portland Transcript, July 14.

"The Land Snails of New England"
American Naturalist, vol. 1, March 1867

1868

"Evidences of High Antiquity in the Kjôekkenmôedden deposits of New England"
Canadian Naturalist, new ser., vol. 4

1869

"Shell Dredging"
American Naturalist, vol. 3, July 1869.

"On the Early Stages of Brachiopods"
American Naturalist, vol. 3, September 1869.
American Journal of Science & Arts, 2nd ser., vol. 49.

[Report of remarks principally on the Glacier system, as illustrated by the various boulders found in the vicinity, etc.] (At field meeting, July 18)
Bulletin Essex Institute, vol. 1, p. 99.

1870

"Position of the Brachiopoda in the Animal Kingdom"
American Naturalist, vol. 4, July 1870.

"The Brachiopoda, a Division of Annelida"
Proceedings American Association for Advancement of Science, vol. 19 (1870).

[Report of remarks on grasshoppers and various natural history topics]
Bulletin Essex Institute, vol. 2 (1870).

1871

"Battle of the Pegs"
Our Boys and Girls, January (1871).

"Playing Fire"
Our Boys and Girls, April (1871).

"On the Adaptive Coloration of Mollusca"
(Read at meeting of April 5, 1871)
Proceedings Boston Society of Natural History, vol. 14.

[Report of observations on the "Spittle Insect"]
(At meeting of November 15, 1871)
Proceedings Boston Society of Natural History, vol. 14.

1873

"On the Systematic Position of the Brachiopoda"
Proceedings Boston Society of Natural History, vol. 15, March 19, 1873.

"The Evolution Theory"
(Reprint of remarks by E. S. Morse and others at Portland meeting of American Association for Advancement of Science, from N. Y. *Tribune*)
Canadian Naturalist, vol. 7, pp. 153-155.

1874

"The Mill Pond Nuisance"
Salem Gazette (Communications), July 8.

[Report of remarks on turtles, embryology and evolution]
(At field meeting of Essex Institute, at Concord, July 27, Edward S. Morse "announced himself a believer in the theory of Darwin")
Bulletin Essex Institute, vol. 7.

First Book of Zoology
New York, D. Appleton & Co. (Later, by American Book Co.) 2nd ed., 1877. In German ("Anfangsgründe der allgemeinen Zoologie") 1877, Stuttgart; 2nd ed. 1881, Berlin. Also in Japanese.

1876

"Law a Farce in some of its Phases"
Salem Gazette, February 11.

"What American Zoologists have done for Evolution"
(Address, American Association for Advancement of Science, Buffalo, August, 1876).

1877

"Traces of Early Man in Japan"
Nature, November 29, 1877.

[Report of remarks on his visit to Japan and on Lingula and Shell Mounds, at meeting of December 19, 1877]
Proceedings Boston Society of Natural History, vol. 19.

1878

"Health Matters in Japan"
Popular Science Monthly, vol. 12 (Jan. 1878).

1879

"Traces of an Early Race in Japan"
Popular Science Monthly, vol. 14 (Jan. 1879).

Shell Mounds of Omori
Memoirs of the Science Department, University of Tokio, Japan, vol. 1, pt. 1. There is also a Japanese edition. (Review in *American Naturalist*, Jan. 1880.)

A Comparison between the Ancient and Modern Molluscan Fauna of Omori
Memoirs of the Science Department, University of Tokio, vol. 1, pt. 1.

"Evidences of Cannibalism in an Early Race in Japan"
Tokio Times, Japan, Jan. 18, 1879.

"Seishu Genshi-ron" [In Japanese]
Contains preface (pp. 1-4) by E. S. Morse in English dated Sept. 1, 1879. Translation of same into Japanese by S. Isawa. (This is an abridged translation into Japanese of the first two chapters of Huxley's "Origin of Species" by S. Isawa) Tokio, 1879.

1880

[Note regarding locality shown in picture by W. Allan Gay:—"Castle Walls at Yedo"]
Boston Transcript, Feb. 14.

"Notes on Hokusai, the founder of the modern Japanese School of Drawing"
American Art Review, vol. 1, pt. 1.

"Dolmens in Japan"
Popular Science Monthly, vol. 16, March 1880.

"Persistence of Korean Ornamentation in Japanese Pottery"
(Title only; read at Boston, Aug. 1880.)

"Some Recent Publications on Japanese Archaeology"
American Naturalist, Sept. 1880.

[Report of remarks on mudwasps, barnswallows, and the Japanese people]
Bulletin Essex Institute, vol. 12 (1880).

"A Model Weathercock"
(Sarcastic remarks on a stationary weather-vane)
Salem Gazette, Dec. 31.

1881

"Prehistoric Man in America"
North American Review, vol. 132, June.

[Report of remarks on method of using sun's rays for heating]
Bulletin Essex Institute, vol. 13 (1881).

"Ancient Japanese Bronze Bells"
(Abstract prepared or approved by E. S. Morse)
Proceedings of the American Association for the Advancement of Science, vol. 30, Aug. 1881.

1882

"Contributions to Biological Science by Japanese Students"
Boston Transcript, Mar. 27.

1883

"A New Plan of Museum Case"
(Abstract)
Proceedings of the American Association for the Advancement of Science, vol. 32.

"The Kitchens of the East"
(Abstract)
Proceedings of the American Association for the Advancement of Science, vol. 32.

"Indoor Games of the Japanese"
(Abstract)
Proceedings of the American Association for the Advancement of Science, vol. 32.

1884

"Notes on the Condition of Zoology, fifty years ago and today: in connection with the growth of the Essex Institute"
Bulletin Essex Institute, vol. 16 (1884).

"On the Use of the Plough in Japan"
Proceedings of the American Association for the Advancement of Science, vol. 33.

"Korean Curios"
Science, Sept. 19.

1885

"Japanese Kite-Flying"
Youth's Companion, Feb. 5.

"Japanese Art"
(notice of E. F. Fenollosa's review in Gonse's "L'Art Japonais")
Boston Transcript, Mar. 19.

"The Utilization of the Sun's Rays in Heating and Ventilating Apartments"
Proceedings of the Society for Arts, Massachusetts Institute of Technology, April 9.

"Ancient and Modern Methods of Arrow Release"
Bulletin Essex Institute, vol. 17 (1885).

1886

Japanese Homes and Their Surroundings, with illustrations by the Author
Boston, Ticknor & Co., 1886.

"A Dangerous Admission" (concerning missionary activities)
Boston Sunday Herald, May 2, 1886.

1888

"A Note from Professor Morse"
(Notice of Bing's "Artistic Japan")
Boston Transcript, Mar. 25, 1888.

"Old Satsuma"
Harper's Monthly Magazine, vol. 76, Sept. 1888.

1890

"How Art Beautifies Life" Professor E. S. Morse on Museums and their influence.
Boston Sunday Herald, Mar. 26.

1892

"On the Older Forms of Terra-Cotta Roofing Tiles" (Read December 21, 1891)
Bulletin Essex Institute, vol. 24 (1892).

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(Remarks at Prang Art Educational Conference, Boston, Apr. 2)
Prang Art Education Papers, No. 2.

"Natural Selection and Crime"
Popular Science Monthly, vol. 41, Aug. 1892.

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Boston Herald, Sept. 17.

1893

"Latrines of the East"
American Architect, vol. 39, Mar. 18.

"If Public Libraries, why not Public Museums?"
Atlantic Monthly, July 1893.
Reprinted in Report of the United States National Museum for 1893.

"A Curious Aino Toy"
Bulletin Essex Institute, vol. 25 (1893).

1894

"The Importance of Good Manners"
Delivered at Vassar College, Founder's Day, 1894.

"The Smoke Nuisance"
Cheaper for the City to Provide Hard Coal than to Allow Use of Soft Coal.
Boston Herald, Aug. 20.

"On the so-called Bow-Pullers of Antiquity"
Bulletin Essex Institute, vol. 26 (1894).

1897

"Acquired Immunity from Insect Stings"
Nature (Letters to the Editor), Apr. 8.

"Korean Interviews"
Popular Science Monthly, May 1897.

1898

"Was Middle America Peopled from Asia?"
Popular Science Monthly, vol. 54, Nov. 1898.

1899

"To Peabody Academy"
[Gift from Dr. C.G. Weld of objects from Korea]
Salem News, Oct. 17.

1900

"Steam Whistle Nuisance"
Salem News, Jan. 15.

"Can City Life be made Endurable"
Delivered at the annual commencement of the Worcester Polytechnic Institute, June 21, 1900.

1901

Catalogue of the Morse Collection of Japanese Pottery
Museum of Fine Arts, Boston (Riverside Press).

1902

Address on Alpheus Hyatt, at memorial meeting, Boston Society of Natural History, February 5, 1902
Proceedings of the Boston Society of Natural History, vol. 30, no. 4.

"Pholas truncata in Salem Harbor"
Nautilus, vol. 16, no. 1.

Glimpses of China and Chinese Homes
Boston; Little, Brown & Co.

"Report of the Keeper of Japanese Pottery"
Museum of Fine Arts, Boston, 27th annual report (for 1902).

1904

"Notable Addition to Collections" (of Peabody Museum, by Henry G. Bridges) (Chinese and Japanese porcelains, etc.)
Salem News, Oct. 25.

1905

"The Steam Whistle a Menace to Pubilc Health"
(Read before the Massachusetts Association of Boards of Health, Boston, January 27, 1905).

"The Museum of Art; a Necessity of Municipal Life"
Bulletin Detroit Museum of Art, Aug. 1905, no. 7.

1906

Mars and Its Mystery
Boston; Little, Brown & Co.

1908

"A New Method of Mounting Ethnological Objects"
Proceedings of the American Association of Museums, vol. 1.

1909

Review of "Ancient Tales and Folk-Lore of Japan", by Richard Gordon Smith
Journal of American Folk-Lore, July-Sept., 1909.

1910

Review of "Chinese Pottery of the Han Dynasty", by Berthold Laufer
American Anthropologist, vol. 12, pp. 455-462.

1911

"On Cleaning Snow from Sidewalks"
Salem News, Mar. 8.

"The Museum Benefactor; Tribute to the Memory of the Late Dr. Charles G. Weld"
Salem News, July 7.

1912

"The Suppression of Unnecessary Noise"
(Read under the auspices of the 9th International Otology Congress in Boston, August 14, 1912).

1913

"Ninagawa's Types of Japanese Pottery"
Bulletin Museum of Fine Arts, Boston, vol. 11, no. 61.

1915

"No Pitch Hot" The Devil Between the Keel and the Garboard Strake.
(Derivation of "hell to pay and no pitch hot")
New York Sun, Oct. 12.

1916

Frederick Ward Putnam 1839-1915 An Appreciation
(Read at annual meeting, Trustees Peabody Museum, March 1916)
Historical Collection of the Essex Institute, vol. 52, no. 3, July 1916.

"Fireflies Flashing in Unison"
Science, Sept. 15, pp. 387-388.

1917

Japan Day By Day
Boston: Houghton Mifflin Co.

1918

"With Skins On" (eat potato-skins for economy)
Boston Herald, July 17.

"Fireflies Flashing in Unison"
Science, July 26.

1919

"Observations on Living Lamellibranchs of New England"
Proceedings of the Boston Society of Natural History, vol. 35.

1920

"Fenollosa and Japan"
Boston Transcript, Jan. 21.

"On Certain Fossil Shells in the Bowlder Clay of Boston Basin"
American Journal of Science, 4th ser., Mar. 1920, vol. 49.

1922

Additional Notes on Arrow Release
Peabody Museum, Salem.

1923

"Agassiz and the School of Penikese"
[Address at celebration of 50th anniversary of founding of the school at Penikese, Aug. 13, 1923]
Science, Oct. 12, vol. 58.

1924

"The Synchronous Flashing of Fireflies"
Science, Feb. 15, pp. 163-164.

1925

"Five Originals of Ninagawa's Work"
Bulletin Museum of Fine Arts, Boston, vol. 23, no. 136, Apr. 1925.

"Shell-Mounds and Changes in the Shells Composing Them"
Scientific Monthly, Oct. 1925, vol. 21.

MORSE'S TRAVELS

1. **Trip to Nikko at an invitation of Dr. Murray of the Imperial University, June 29, 1877**
   - stage from Tokyo to Utsunomiya
   - jinrikisha from Utsunomiya to Nikko and Hashi-ishi
   - on foot around Chiuzenji Lake and up Mt. Nantai
   - jinrikisha to Nowata
   - boat down the Tone River to Tokyo
2. **Trip to Hokkaido with Professor Yatabe of the Imperial University, July 13, 1878**
   - steamer from Yokohama to Hakodate
   - steamer from Hakodate to Otaru
   - on foot and horseback from Otaru to Muroran
   - steamer from Otaru to Mori; on horseback from Mori to Hakodate
   - steamer from Hakodate to Aomori
   - jinrikisha and boat from Aomori to Utsunomiya
   - stage from Utsunomiya to Tokyo
3. **Trip to the Inland Sea and Kyushu, May 9, 1879**
   - steamer from Yokohama to Nagasaki via Kobe and Shiminoseki (day trip on foot to Mogi)
   - steamer from Nagasaki to Kagoshima
   - steamer from Kagoshima to Takahashi
   - jinrikisha from Takahashi to Kumamoto and Yatsushira, and back
   - steamer from Takahashi to Nagasaki
   - steamer from Nagasaki to Kobe
   - overland from Kobe to visit Osaka, Kyoto, and Nara
   - steamer from Kobe to Tokyo
4. **Trip to Kyoto and the Inland Sea with Mr. W. S. Bigelow and Mr. E. Fenellosa, June 5, 1882**
   - jinrikisha, kago and stage from Tokyo to Nagoya
   - boat and jinrikisha from Nagoya to Kyoto
   - overland from Kyoto to Osaka; steamer from Osaka to Hiroshima
   - junk from Hiroshima to Iwakuni and back
   - steamer from Hiroshima to Kobe
   - train and jinrikisha from Kobe to visit Osaka, Wakayama, Nara, and Kyoto
   - steamer from Kobe to Tokyo

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